

Nation's Business

A MAGAZINE FOR BUSINESSMEN

AUGUST 1955



America needs

A MILLION SALESMEN



*One industrial salesman keeps 31 factory workers busy. A study of where to find more of these men, how to train them, what to pay them begins on **PAGE 68***

Russia fears Red China's strength **PAGE 32**

Ballooning government outgrows business **PAGE 28**

We're arming for the wrong war **PAGE 21**

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memory
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*Alva Restaurant,
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*Kent Dairy, Ltd.
Chatham, Ontario, Can.*

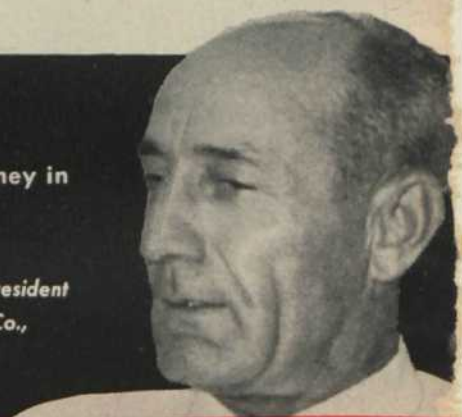


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*Chavis Construction Co.,
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*Liddon Pontiac, Inc.,
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Grandpa group

Congratulations, Mr. Morley, on your very enlightening "State of the Grandparents" article in the June issue. You sound like a new grandfather.

In case this is true, I would like to make you a member-in-good-writing of my secondary and exclusive association—the GRAND ORDER OF GRANDFATHERS. The dues of a dime a year for this club are rather steep so I will just waive them in your instance.

If your gift of gab is as good as your gift of pen, as a grandfather you should become the Grand Bragger in your area with little effort.

STANLEY E. WOLFE,
Optical Wholesalers National
Association, Inc.
Columbus, Ohio

NOTE: Felix Morley, new grandfather, says he'll pay his dime.

Reprints for executives

The June issue of NATION'S BUSINESS was even more excellent than usual and contained a number of articles which we feel would be most valuable to our foreign associates. Your assistance in obtaining 15 reprints of the articles entitled "What Makes an Executive?", "Pick Your Manager—Let Him Manage," and "Training Method Tests Executive Judgment" would be appreciated.

GEORGE DONAT,
Parke, Davis & Company
Detroit, Mich.

Are reprints of the article "Pick Your Manager—Let Him Manage" available? We are interested in obtaining 100 copies.

ROBERT A. HARPER,
Koppers Company, Inc.
Pittsburgh, Pa.

NOTE: Reprints of the executive package of three articles are available at ten cents each, or \$7.50 per 100 in lots of 100 or more.

Prestige to Mississippi

The article on A. Boyd Campbell titled "Statesman from the New

South" (May issue) aided Mississippi's battle for national prestige tremendously.

TETLOW R. JOHNSON
Chamber of Commerce
Cleveland, Miss.

Everything in its place

On page 102 of the May issue (NB Notebook), and quoting J. Peter Grace, appears "... we had only our paint plant. ..." The correct placement of the word "only" I found most refreshing. To have read the degenerate and all too familiar "we only had ..." would have been nauseating.

Back in the last century in my elementary school days we had a teacher who drilled us most thoroughly in this and she, by the way, had no college degree. I feel that J.P.G. deserves commendation.

GEORGE WILLIS
San Antonio, Tex.

NOTE: Full credit to J. Peter Grace for remembering his grammar.

Aid to civic leaders

Please send us 200 copies of "You Can Have Better City Government Free" which appeared in the June issue.

HELMER E. OLSON,
Chamber of Commerce
Hibbing, Minn.

Too cold, too ruthless

I have carefully studied your article "What Makes an Executive?" I quote "... a person who wishes to attain distinction today must be willing to make personal sacrifices—time with family, popularity, hobbies."

By extending this a bit further, such a man then cares nothing for his family, either has no friends or does not care for friends, knows nothing outside the business. If those are the qualifications you want you can expect trouble.

How can a man who cares nothing for his family be expected to understand people who do love their families? How can a man who has no friends understand friendship? How can a man who has no hobbies be ex-

pected to understand people who do have some culture?

In short, what kind of man is it who will evaluate prestige above real values?

It is apparent, if you read the article through, that the men who were interviewed have stated that they want for an executive a cold, ruthless, individual who is dedicated only to the corporation. They are the kind that give so many corporations a bad name.

We think your 19 experts should re-examine themselves.

W. H. SAYLER
Specialty Sales Co.,
Salt Lake City, Utah

Says GAW means trouble

Now that the guaranteed annual wage is going into effect in various plants around the country, I predict there will be more men who are steadily employed—also there will be more men who are steadily unemployed . . . men who will find it almost impossible to get a job. Watch and see. The government will have to step in with a make-work program for these steadily unemployed men.

ED BATZNER,
1116 W. North Avenue
Milwaukee, Wis.

Recommends big stick

I have been reading your "Washington Mood" (June issue) and I am greatly discouraged to think that our best writers of today seem of the opinion that it is possible to have peace with Russia.

It is the Soviets' fondest hope that we lull ourselves with their promises so they can continue to pick off peoples, islands and countries until we are alone in a Soviet world. It is my firm opinion that, if we have the strength we claim, we should not only insist that Russia slow down, but back up, relinquish territories acquired illegally and get the hell out of our hair.

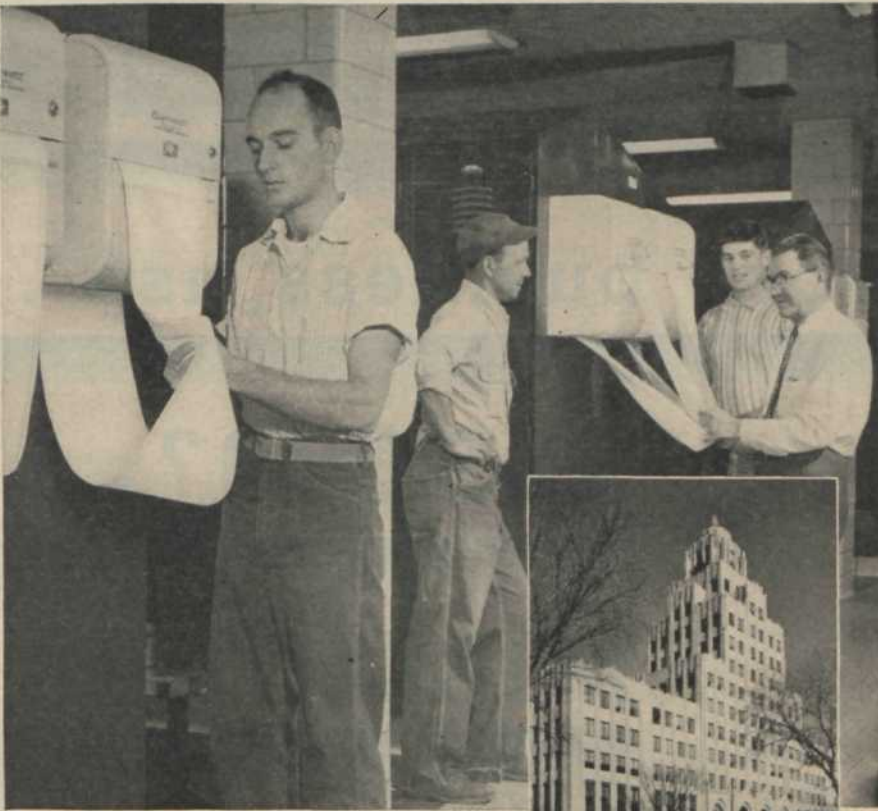
Therefore I believe Ike should stay on the job and continue such tactics as will press the Soviets into a defensive position. It seems that we never have had the stuff Teddy R. had. Tell them to behave, and if they do not—bat their ears off.

JAMES M. STANKARD
311 Grand Avenue
Akron, Ohio

Labor's looming strength

Permission is requested to reproduce ten copies of the article "Labor Builds Political Power" (June issue). We propose to use the copies in conjunction with a reading im-

**Here's why A. E. STALEY CO.
has switched to cotton**



A. E. Staley Co. use Fairfax Towels
supplied by the Decatur Clean Towel Service,
Decatur, Ill.



Giant processor of corn and soybeans for a multitude of markets, A. E. Staley now maintains 108 buildings on its Decatur, Ill. plant site. This factory complex calls for high standards of skill and efficiency. Staley insures these standards in every way. Inevitably that includes washrooms equipped with clean cotton towels.

In the words of the company: "We first installed cloth towels in 1951, estimating a saving of \$9 per month per cabinet for locations given heavy use. Today, we have switched entirely to cotton in our plant and office buildings—248 installations in all."

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From office buildings to plants to institutions—pride and profit point to cotton. A free booklet explaining cotton towel service is yours on request. Write: Fairfax, Dept. N, 65 Worth St., N. Y. 13, N. Y.



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J. W. HILL

*E.I. du Pont de Nemours & Co.,
Wilmington, Del.*

NOTE: Ten copies sent.

78 per cent for management

I read with great interest the article "Proxy Warfare May Provoke Tighter Government Rules" . . . in the July issue. On page 91 . . . the following statement was made:

" . . . This was in sharp contrast to shares in hands of brokers, indicating individual stock owners. They voted only 26 per cent for management."

The fact is that 78 per cent of individual stockholders, representing 72.8 per cent of the voted stock registered in the names of individuals, voted for management.

In order that you may be fully informed, following are the final results of the votes cast in the recent Montgomery Ward proxy contests. Percentages represent the percentage of shares voted for management, out of the total shares voted:

Individual shareholders	72.8%
Bank holdings	91.9%
Nominees	83.4%
Educational institutions	95.5%
Insurance companies	88.3%
Investment trusts	92.8%
Other fiduciaries	79.1%
Brokers	26.5%

D. C. BELL, Vice President
*Montgomery Ward & Co.,
Chicago, Ill.*

All states get federal money

In the June issue your article "Your Rich Old Uncle's Deep in" (Continued on page 83)

CORRECTION

The May article, "You're Starving Your Local Chamber," stated that the San Jose, California, Chamber of Commerce "bought and improved a tract of land that had caught the eye of Ford scouts, then offered it to the company on an attractive, long-term lease." Actually, the Western Pacific Railroad Company bought approximately 1,200 acres of land near San Jose as an investment, and subsequently 100 acres were sold to the Ford Motor Company.

washington letter

MANAGEMENT'S

►LET'S KEEP the credit picture in focus.

There's been talk of overextension in some lines--but Federal Reserve Board survey doesn't show it.

The figures:

57 per cent of families in survey have no instalment debt and 44 per cent no consumer debt at all.

Of the 43 per cent of families with instalment debt, 72 per cent make payments ranging from one to 19 per cent of disposable income.

Nearly 30 per cent of families with some consumer debt have assets (bank accounts or bonds) exceeding the debt.

►YOU CAN EXPECT credit to move in two directions at once.

It will ease up in some lines, tighten in others.

Over-all effect: Plateau of semi-easy money will continue.

Here's breakdown of Federal Reserve Board thinking:

FRB doesn't want to slow current record business activity, but doesn't want to pile froth on the boom either.

So Board will check home mortgage credit at about present level.

Stock market margin requirements may be raised to 80 or 90 per cent.

At the same time, rediscount rate (interest charges to banks which borrow from FRB) will get slight cut.

Easier credit's needed now to move farm goods to market, help stores build Christmas inventories.

►WORRIED ABOUT consumer credit expansion?

Look to your own credit department, then.

Whether or not you're worried, you need a sound credit office in your organization.

That's often passed over when stress is placed on sales.

Remember: It's easy for a salesman to clinch a deal when credit terms are easy.

Credit standing of customer isn't his worry--it's worry of credit manager.

And that, in final analysis, is your worry--collection costs can erase profit in easy credit terms overnight

Note: Consumer credit's nudging the

\$31,000,000,000 mark, nationwide, but credit managers say repayments, personal income more than keep pace.

►RE-STOCKING EMPTY SHELVES will beef up economy for rest of year.

Inventories do flip-flop from year ago; they're rising, not falling--and they have long way to go, relative to sales, before they get topheavy.

Here are the figures:

Manufacturing, trade stocks (all categories) stand at more than \$80,000,000,000.

That's highest since '53.

Sales run at annual rate of \$52,000,000,000, up \$3,000,000,000 from '53.

That means at least a \$3,000,000,000 gap to be filled before '55 reaches sales-stock ratio of two years ago.

Note: In July-August, '54, stocks dipped from \$77,600,000,000 to \$77,300,000,000.

►PRESSURE BUILDS UP for bigger wage boosts.

That's prospect businessmen face for rest of this year and into '56.

Here's why:

Unions study auto, steel pacts where cash increases average 9.4 cents an hour in former, 15 cents in latter. Increases don't include 5 cents an hour auto makers will put into unemployment benefit fund (GAW).

In first quarter of this year, wage hikes averaged 5.9 cents an hour; in second quarter, 7.2.

That's first half average of 6.7 cents (for those who got raises).

Now with major pacts signed union leaders see curve going up, want to push it further in negotiations coming up in next five months.

Next main target of union wage drives: electrical equipment industry.

Note: Wage settlements haven't been as high as 10 cents an hour, on average, since start of Korean war.

►THESE LEFTOVERS will be next year's main congressional fare:

(It will pay you to keep a sharp eye on the issues; many will directly affect your business or your trading area).

1. Highway building: Only groundwork

will be laid this year. You'll have to wait until '56 to see where roads will be built.

2. Health reinsurance: With almost two-thirds of U. S. workers and their families covered by voluntary health programs, proposed added federal coverage won't make much headway--except in political statements.

3. Military survivor benefits: Any legislation will be reopened next year, regardless of terms agreed to in this session.

4. Reclamation projects: Perennial political problem. Neither party will want to risk displeasure of local electorate, so look for bigger and better projects (on partnership basis or otherwise) in '56.

5. Minimum wage: Coverage looms as big issue next year, whether 90-cent or \$1 floor stays put or not.

6. Military reserves: Pentagon wants compulsory training, Congress doesn't. That's nub of feud that will heat up in next session, regardless of legislation this year.

7. Public housing: With private residential construction at record high--and more people buying more houses than ever--issue is academic, except politically.

You can look for 200,000 units to be voted over four-year period--but don't wait for them to be built.

8. School construction: States are currently spending about \$4,700,000,000 a year for education, 30 per cent of total state budgets.

President's White House Conference on Education will note this, so '56 isn't likely to see big hike in federal aid.

9. Refugee Act amendments: There'll be sound and fury to spare but basic law (McCarran-Walter Act) won't be changed.

10. Miscellany: Customs simplification, so-called, will wind up anything but simplified. There'll be more, not fewer, rules and regulations.

President's atoms-for-peace merchant vessel eventually will slide down the ways.

In fact, two or three ships may slide at once--but it won't be for several years.

(For details on legislative situation see page 44)

►YOU PAY MORE for TV and radio service than for new sets. That is, you do if you're an average American family.

Your service bill, over-all, this year will top \$1,500,000,000, says the Radio-Electronics-Television Manufacturers Association.

That's about \$100,000,000 more than expected TV, radio set sales.

Note: It's first time in history, says RETMA, that service costs will exceed retail value of new set sales.

►AMERICANS ARE saving more--and buying more at same time.

Annual rate of savings stands at about \$20,000,000,000, or 8 per cent of disposable income.

That compares with \$18,400,000,000 rate of year ago.

Note: Increase in liquid assets takes place at same time people are buying 4,300,000 cars and trucks--biggest six months' buying spree in history.

And purchase of life insurance is expected to top \$3,500,000,000 in policy value this month, up from \$3,190,000,000 year ago.

What's the answer?

Personal income's running at annual rate of \$261,000,000,000--\$7,100,000,000 over a year ago.

Out of this disposable income, Americans are spending (on annual rate basis) \$4,000,000,000 more for durable goods, \$1,600,000,000 more for non-durables, \$1,000,000,000 more for services.

Rest goes into the bank.

►HERE'S MAIN REASON behind confusion in industrial dispersal program:

Office of Defense Mobilization (upon which most businessmen depend for dispersal, other information) can't get clearance on technical data from Atomic Energy Commission.

Result: No OK for dispersal plan--and no reason given.

Another AEC clearance note:

One major electrical equipment producer has AEC contract which calls for news clearance on all atomic subjects from one man in AEC.

Meanwhile, competitors announce latest developments (some even started by their rival, who, by contract, must wait for

washington letter

official OK). Here's what to look for: Thorough overhaul of AEC news and information services, as well as clearance rules.

► **MORE PEOPLE** bring more business into a community.

But more people cost more, too--in municipal services, schools, etc.

If you're in population growth area, you can use these figures (from American Society of Planning Officials) as benchmarks on cost of getting big:

One hundred new families mean 450 new people.

That, in turn, means 2.2 more grade school rooms, 1.6 more high school rooms.

Cost: About \$120,000.

On annual basis, 100 families will add \$30,000 to school operating budget, for new teachers' salaries, building additions.

Other costs: More garbage collection, tax collecting, street cleaning; 10,000 extra gallons of water a day; more land purchase for parks, playgrounds.

This adds up to more municipal employees--an added policeman, two thirds of a fireman, others--with a general payroll hike of \$12,000 to \$15,000 a year. These figures don't count new hospital bed (cost: \$10,000)--or a fraction of a jail cell.

► **POWER EQUIPMENT** purrs to new production highs.

By year's end electric utilities will have installed capacity of 116,000,000 kilowatts.

That's 13,000,000 kw above Dec. 31, 1954.

New goal (for Dec. 31, 1958): 150,000,000 kw.

Monthly production rate of power generating equipment from now to year's end: 850,000 kw.

Here's impact of atomic power on total:

Six nuclear reactors are under construction. They vary in size from 60,000 to 236,000 kw, have total capacity of 750,000 kw.

But they're not scheduled for service before 1960.

That means nuclear power won't fill substantial part of U. S. power needs for many years.

► **AUTOMATION CREATES** new jobs before eliminating old ones.

So far, it has created thousands of jobs, eliminated few.

But new machines underscore need for highly skilled workers.

Loss of jobs is in unskilled category.

More than 1,000 firms now manufacture automatic machines. They're expected to turn out units valued at \$3,500,000,000 this year.

Dollar figure will top \$5,000,000,000 by '58, industry says.

► **BIG INSURANCE FIRMS** push easier housing credit for small towns.

The reason?

Firms follow the trend to suburbs, seek broader outlets for investment funds formerly put into big city housing developments--mostly rental.

Here's what they're doing:

Funds (on VA, FHA terms) are channeled into scarce-money areas, or where local bank can't undertake added financing.

That helps meet local housing needs, takes pressure off local credit facilities.

Note: If idea goes well, insurance firms may broaden program to include slum clearance, renewal projects.

► **BRIEFS:** Americans will spend about \$130,000,000 this year for 50,000,000 gallons of household and commercial insecticides....U. S. motorists will replace 50,000,000 tires during '55, up six per cent from year ago....Bank mergers this year will result in at least 350 state, national banks being absorbed into larger units....Surveys now in final stages indicate 40 per cent of radio sales in '56 will be for use in autos; high school, college teams, surveying in key spots, will turn in their data next month....Canada, the United States' biggest export-import customer, will slice its income tax five per cent next year; Canada has cut its personal tax levy three years in a row....90 per cent of civil aircraft built today (1,500-2,000 units) are marked for business, executive use....More than \$700,000,000 will be spent this year for new church buildings--healthy boost to overall construction picture.



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BY MY WAY

R. S. Suffero



Farewell—and hail!

There is no sadder and perhaps no more reassuring word in the English language than farewell. It is sad because a friend is going away, or we are going away from friends. It is happy because it means that friends exist and that we wish them well. It is happy, also, because on most occasions we know the friend who goes away will come back. Farewell or hail, hail or farewell, it is friendship, it is good will, it is the emotion that dims the eye without quite breaking the heart that keeps this world beautiful.

Old friends are OK

Going back to one's old haunts and seeing one's old friends after a lapse of years is sometimes risky. Maybe things have changed. Maybe the persons involved have changed. But I do believe the risk is worth taking, and my wife and I will be taking it, at about the time these words are in print. One makes friends because there is some similarity of taste or because the prospective friends happen to be in the neighborhood where one works or lives. The neighborhood, the work, the styles in men's sportswear, women's hats, movies, politics and automobiles may all be altered as the seasons pass, but the fundamental fact remains: to know another individual well, to learn his (or her—bless her heart!) hopes and ambitions is, I find, the basis of an abidingly friendly feeling. So I'm not afraid to meet old friends, and I hope they're not afraid to meet me—I've grown crotchety, to be sure, but I still mean well.

Abroad at home

After we have lived long enough in a village or a great city, I believe, most of us stop seeing it—really seeing it, I mean. We take it for granted. If anybody asked us to describe one block of houses or stores in it we couldn't. Sherlock Holmes could, of

course, but there is but one Sherlock Holmes, and he is imaginary. The best way to get the freshness, surprise and beauty back is to pretend we are strangers and see it all with strangers' eyes. So we took a sight-seeing trip around town the other day, my wife and I, and there they were, sights we hadn't seen for many years—the well known Points of Interest. Our fellow passengers exclaimed with admiration, and took pictures, and so did we.

Look, a horse!

With the aid of many inventors and deep thinkers and a great expenditure of capital this nation has finally succeeded in almost abolishing the horse. We retain this admirable animal mainly for pleasure. Or for pain, as in the cases of those who bet on the wrong horse. So I was



charmed the other day, in New York City, to witness the innocent glee on the faces of quite a number of persons, old and young, who were being driven around Central Park in a number of hired hacks. It is nice to know that although we can't uninvent the automobile, and wouldn't really want to, we can sometimes circumvent it.

The bard and the printer

A fragment of manuscript thought to be in the handwriting of the late William Shakespeare, of London and Stratford-on-Avon, is on exhibition in the British Museum. By modern standards it is hard to read—indeed, almost illegible. Elizabethan printers, however, were accustomed to set type from illegible manuscripts, the typewriter not yet having been invented. And this gives me one more

theory as to the authorship of Shakespeare's plays, assuming that he did not write them himself. They were written by printers who could not read the copy and just made up what they thought would fit. (I know some such printers—I am no Shakespeare except in the matter of poor handwriting, but if I interline a piece of copy with a pencil the printer always makes words of it—maybe not the words I intended or hoped for, but good words for all of that.)

Grandpa had color, too

I find by reading the male fashion notes that I can now, if I wish, buy myself a Sorrento mint shirt (good, I imagine, with a pair of julep pants) or I can coordinate any color of shirt



with my ties and socks—in fact, my wife often does this for me right now. Everybody seems a bit surprised at all this, as though men had never heard of color before. This is wrong. Our male ancestors went in for color, all right, but not the delicate hues. I rise, if not too late, to put in a nostalgic word for the old-fashioned red undershirt.

The village philosopher

My ancient friend Similibus C. Crabtree, of Internal Workings, Vt. (named after an English village of the same name), says that so long as he has a house with a roof that doesn't leak much, a little truck garden, some credit at the general store, a job when he needs it but not all the time, the chance of a little fishing and maybe some deer hunting in the fall (only he hasn't got a deer yet, he just likes the woods and feels successful when other hunters don't hit him), and a few gallons of cider that he does his best to keep from turning into hard cider, but, try as he may, he doesn't always succeed—he says, to sum up his philosophy, that if he has all these things he doesn't much mind being poor.

The good earth

I have been reading and hearing of proposed trips to the moon and various planets. That is all right with me, provided I don't have to go. I have been comparing climates here and there, in interplanetary and interstellar space. I like it better here.

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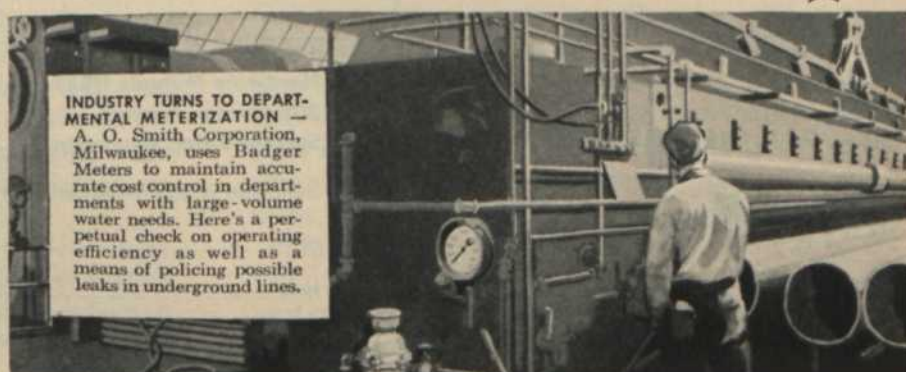
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Trends of Nation's Business:

State of the nation

By Felix Morley



The issues as voters see them

THIS REPUBLIC was unborn when the great Irish statesman Edmund Burke laid down a principle of parliamentary government which is today increasingly influential in our Congress.

"A representative," Burke told the voters of his district in 1774, should "live in the strictest union, the closest correspondence, and the most unreserved communication with his constituents. Their wishes ought to have great weight with him; their opinions high respect; their business unremitting attention. . . .

"But," Burke concluded, "a representative's unbiased opinion, his mature judgment, his enlightened conscience, he ought not to sacrifice to any man, or to any set of men living. . . . Your representative owes you not his industry only, but his judgment; and he betrays, instead of serving you, if he sacrifices it to your opinion."

Sen. Thomas E. Martin, of Iowa, uses this deathless quotation to describe the purpose of the searching questionnaire which he sent this year to every twentieth householder in his state. No member of the Eighty-fourth Congress is more independent in his thinking than Tom Martin. Yet none is in more "unreserved communication with his constituents." Through the combination there is emerging a formula of real significance for the vitalization of representative government.

Of course, the public opinion poll is no novelty. It was long since popularized by Dr. George Gallup, whose friendship with Senator Martin goes back to association at the University of Iowa more than

30 years ago. But the poll as developed by the senator is a highly refined instrument for taking the pulse of democracy. And it achieves penetration without any injection of partisanship, as evidenced by the separate but equal indorsements of his system received by Senator Martin from both Mr. Truman and President Eisenhower.

Tom Martin is very much the junior senator from the Hawkeye State. It was only last November that he countered the general Democratic trend by upsetting veteran Guy Gillette. But before entering the upper house Mr. Martin had served eight consecutive terms as representative of Iowa's First District, currently famous for having produced golfer Jack Fleck. And it was in the House of Representatives that former Congressman Martin initiated the questionnaire which he is now developing as a senator.

Ingenuity begins with selection of the questions asked. This year the senator began by tabulating all the issues raised by President Eisenhower in his various messages to the new Congress. That produced a first crop of 130 interrogations. These were then checked against the issues selected for editorial comment by Iowa and other newspapers. Subjects largely ignored by the press are likely to be eliminated while subjects of widespread press comment, ignored by the President, may be added.

This winnowing procedure reduced the original 130 questions to the 35 actually asked on the current questionnaire. The final problem is the objective wording, worked out with the cooperation of

State of the nation

the senator's wife, whose specialty in her pre-Martin days was English composition. Her touch is evident in the simplicity and clarity of the final product, such as: "Do you think management of money in welfare funds of labor unions should be regulated by the law as insurance funds are regulated?"

Of the Iowa voters sampled, 5,766 replied yes to that question and only 503 said no. This 92 per cent affirmative response is the highest received on the current poll. The lowest affirmative reply is a fraction under 20 per cent, to the query: "Do you favor immediate balancing of federal budget by increasing federal taxes?"



If Tom Martin dishes out questions, he can also take them. "When your replies are as overwhelmingly decisive as those two," I inquired, "do you still agree with Burke's belief that a representative's judgment should be wholly his own?"

The reply came with that gentle firmness which is the senator's characteristic: "Burke said a legislator's judgment should not be sacrificed to the opinions of his constituents. But he also said 'Their wishes ought to have great weight with him.' When three quarters of a fair sample of Iowans express a viewpoint that seems to me eminently reasonable, I would regard that as a mandate."

Effort to make the Martin poll the fair sample claimed is very real. This year the senator spent \$1,500 out of his own pocket to purchase not only all the city directories published in Iowa, but also those of its 99 counties. But occupational balance is not necessarily obtained by covering the rural as evenly as the urban areas. Therefore Mr. Martin asks all who answer to list their occupation, enabling him to classify the voices of his constituents by categories.



Certainly the 42,561 questionnaires sent from Senator Martin's office this year are numerically an adequate sample. And the return of 15.5 per cent is high, especially considering the difficult nature of some inquiries, such as: "Do you favor a constitutional amendment making treaties of no force and effect if they deny or abridge any right enumerated in the United States Constitution?" That, of course, is the Bricker Amendment. But the senator intentionally does not mention the name of his Ohio colleague, because names always tend to cloud an issue emotionally. Still, queried impersonally, the Iowa ayes on this question outnumber the nays nearly two to one.

It takes time and trouble to answer 35 questions of this general character. Nevertheless, Tom Mar-

tin has added a thirty-sixth, perhaps the most significant of all. At the end of the questionnaire he groups a dozen paramount issues, all of them under current debate, and asks his constituents to check the six "you think most important today." These returns are also summarized by occupational categories. And all of them—farmers, labor, business, professional, white collar and miscellaneous—rank government spending as the supreme Iowa anxiety. There is no such uniform agreement about the second most important issue, which to the farmers, is agricultural price support; to labor and business, taxation; to the professional group, foreign policy.

As Senator Martin explains, this final question gives him a double check on the thinking of his constituents. It is impressive that 79 per cent of his returns "favor immediate balancing of federal budget by reduction of federal spending." The effect of this is strengthened when three quarters of all the returns, with a majority in every occupational category, rate government spending as the most important single issue now confronting the republic. No wonder Tom Martin's name has been on the economy side of every senate vote this session!



An increasing number of congressmen are now developing polls of their constituencies, more or less patterned on that so carefully organized by Mr. Martin. One of the most interesting of these questionnaires is that sent out by Rep. Lawrence H. Smith of the First Wisconsin District. It is semi-annual, and having run for five years now this poll provides trends of Wisconsin thinking over a fairly long period. It indicates, for instance, that the Administration's foreign policy is today much more popular in Mr. Smith's district than was the case two years ago. Especially interesting is the response on: "Do you approve a questionnaire of this type as a means of helping a congressman to know the thinking of his constituents?" To this inquiry 1,419 Wisconsin voters currently answer yes and only 13 no.

It is curious that these congressional polls, so far as my research goes, are largely confined to the Middle West. Does this mean that by and large middle westerners are more interested in public questions, more eager to maintain representative government, than other Americans? Senator Martin, queried on this point, tells a pointed story.

Among those deeply interested in his poll is a congressman from a large eastern city. But this representative laments that he could not safely conduct such an inquiry himself. Organized pressure groups in his constituency would resent it. Congressman X says he would promptly lose his party's nomination if, like Senator Martin and Representative Smith, he should raise the question:

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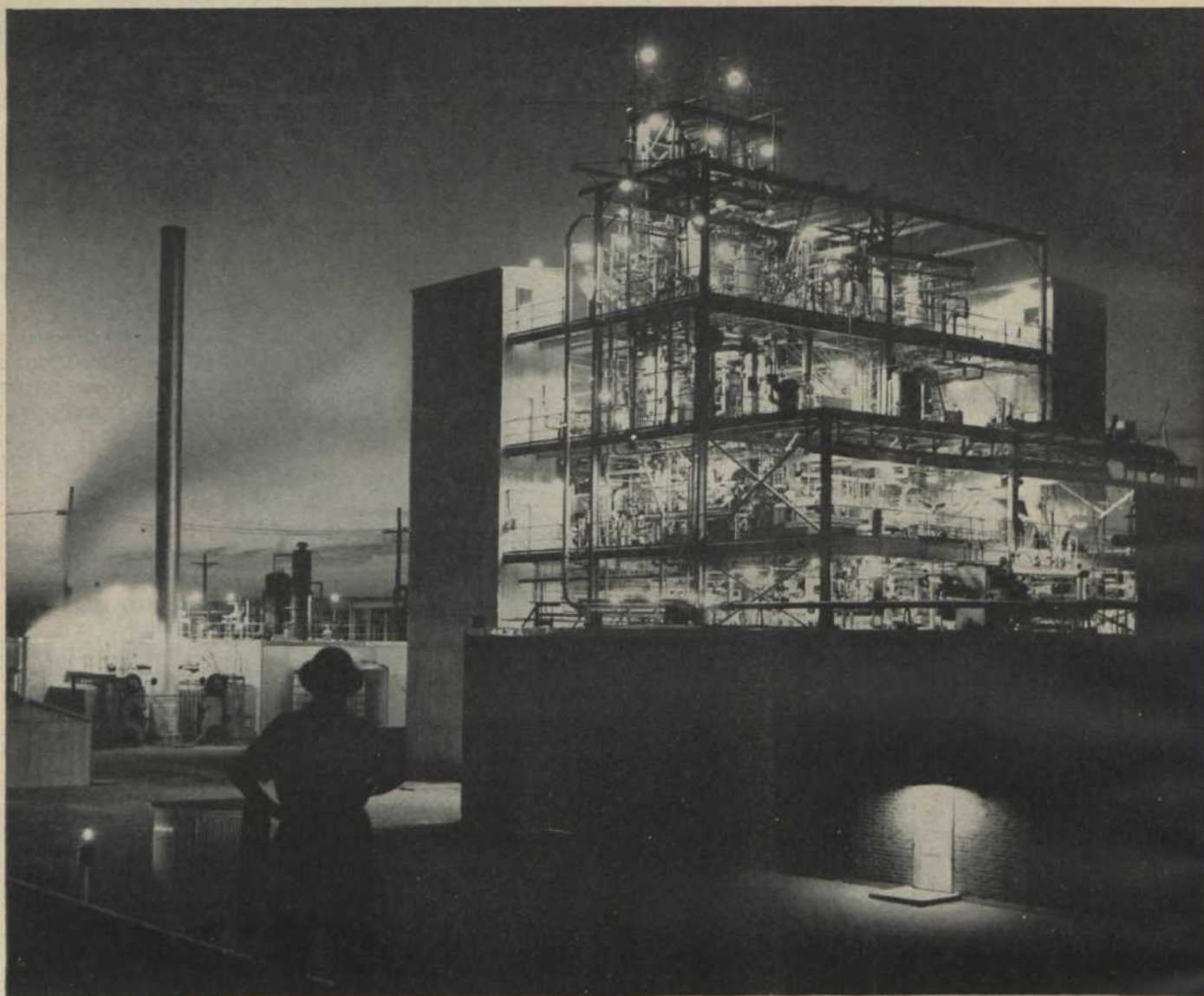
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Trends of Nation's Business:

Washington mood

By Edward T. Folliard



New spirit enters the White House

THE office of President of the United States is so exalted, so wrapped in grandeur that it seems almost bad taste to refer to it as a job. Yet, in the colloquial sense, it is a job. And the man who holds it, if he is lucky, undergoes an experience that is familiar to many of us with jobs. He reaches a point where the work no longer daunts him, where he can do it and actually enjoy himself.

President Eisenhower seems to have reached that point in late June. Or perhaps it would be more correct to say that the reporters who traveled to New England with him—I was one of them—thought they discovered such a change in him at that time.

The soldier-statesman seemed happier, more buoyant and more confident than he ever had since moving into the White House.

Something happened right after his New England tour that pointed up the President's mood. He was holding a news conference. A reporter asked him to comment on a House resolution which expressed sympathy for the Russian satellite countries and called on the United Nations to help them throw off the Kremlin yoke.

President Eisenhower said frankly that he didn't even know that the House had adopted such a resolution.

"Maybe I was fishing that day, I don't know," he said.

Old-timers among the newsmen, exchanging notes afterward, agreed that they had never heard

a President talk that way in public. Ordinarily, an occupant of the White House doesn't like to admit that he does not know everything that goes on in Congress. But for a Chief Executive to admit it, and at the same time say that he might have been fishing—well, the veteran writers had to agree that only a man pretty sure of himself and of his standing with the people would be so blunt.

Herbert Hoover would never have made such a remark. But then Mr. Hoover never had the experience of wrestling with his job, feeling that he had mastered it, and enjoying it. He had hard luck. In his first year in office came the Wall Street crash. This put him on the defensive, and his job was an uphill one until the day he left the White House.

Franklin D. Roosevelt, it always seemed to me, took it as the most natural thing in the world that he should be President of the United States. He appeared to have no doubt that he was the man best qualified for the office, and he enjoyed himself immensely for 12 years.

• • •

Harry S. Truman had more humility. In the beginning, he complained a great deal about the fate that landed him in the nation's highest office. He would say that he wished FDR had lived, and he would describe the White House as a jail. His aides, embarrassed, called this Mr. Truman's "hair shirt speech." They thought it was bad for him and for the country, since it encouraged the idea that he was not big enough for the job.

Curiously, Mr. Truman began to enjoy the Presidency when the going got rough, when his back was to the wall. All kinds of things happened to him—nationwide strikes, a meat shortage, Henry Wallace trouble, Russian expansion, and the loss of Congress to the Republicans in 1946. Then he seemed to take command and to find joy in the fray. He cracked the whip over John L. Lewis and beat him in court; he adopted a get-tough policy with Russia, and he prepared to do something that few Americans believed it possible for him to do—get himself elected for a full, four-year term in 1948.

President Eisenhower's experience has been alto-

Washington mood

gether different from Mr. Truman's. It is taking nothing away from him to say that in many ways—the absence of great strikes, for example—he has had more luck than the Missourian. True, he also has had the experience of seeing his party lose control of Congress, but this happened with no discernible drop in his own vast popularity.

It is always dangerous to pontificate about changes in a public man; to write, for example, about “a new Eisenhower.” Sometimes a man's liver may be responsible for a certain mood, good or bad. Or seeming changes in a man may be largely in the eye of the beholder.

But even granting this, the reporters who traveled to New England with the President, and who wrote stories about his debonair way and his stout confidence, seemed amply justified.

I have seen a lot of him over the years, in Europe in World War II, in the 1952 presidential campaign, and in his two and a half years in the White House. Undoubtedly on this trip there was something new—a buoyancy of spirit that had not always been so evident.

There could be two possible explanations for this, neither of them very profound.

If President Eisenhower seemed less gay in his earlier days in the White House, if he seemed unwontedly absorbed in the work of the presidency, there was good reason for it. He was a professional soldier with little experience in dealing with many of the problems of the office, particularly with what we call domestic problems.

Significantly, at his early news conferences, he seemed to welcome questions about foreign affairs. Here he was well posted and usually sure-footed; probably no man in our history had come into the presidency with a better preparation for dealing with the world situation.

However, when it came to purely domestic matters—balancing the budget, the shortage of schools, the McCarthy controversy and so on—President Eisenhower seemed less at ease in dealing with the reporters' questions.

As time has gone on, he has obtained a better grasp of these domestic matters. He has done so because he has had to.

As they say in Washington, he has done his home work.

That could be one reason why he seems to be more sure of himself and happier in his job.

The other reason could be the rosy economic picture in the United States, together with the fact that he soon would be flying to Geneva for

the Big Four conference and a chance to strike a blow for world peace.

Some of the news stories about the President's travels in Vermont, New Hampshire and Maine said that he appeared to be campaigning. I did not think so, although the crowds and the atmosphere were at times suggestive of a campaign. Ordinarily these three states in northern New England are so overwhelmingly Republican in a national election that candidates don't even bother to go into them.

Whatever may have been in the President's mind as he moved through the three states, the politicians naturally were thinking in political terms.

The reaction of top Republicans was, as might be expected, one of sheer delight.

They have been telling themselves that President Eisenhower would run again in '56, and arguing that he would have to run because of his great sense of duty.

This argument has a grave weakness. The President, if he should succeed in achieving his two big goals of prosperity and a fair outlook for peace, might say that he had done his duty with one term—that no more could honestly be asked of him and that he had earned the right to settle down in retirement on his Gettysburg farm.

The Republican strategists have been aware of this danger all along, even as they have hammered at the sense of duty argument.

That is why they were so thrilled by the reports from New England that President Eisenhower seemed to be acting like a man who was happy in his job and not at all like one who was in any hurry to leave it. If that's the way it was, they told themselves, then they really should stop worrying and drive ahead with that slogan, “Ike in '56.”

The fact remains that President Eisenhower's intentions are a deep mystery. His White House associates say that he continues to be a sphinx with respect to the matter. Some of them are convinced that he himself does not know at this time whether he will throw his hat in the ring again.

What impressed me about the New England trip, aside from the President's jovial mood, was the effect he had on the crowds. New England politicians also were impressed. They saw Mr. Number One move among people they had always believed to be reserved and undemonstrative and they saw these people go all-out in their welcome for him. They noticed, too, that he seemed to evoke hearty manifestations of patriotism wherever he went. Flags would be out in profusion, church bells would ring, and a new sign would join the familiar “I Like Ike” placards, one reading “God Bless You, Mr. President.”

An onlooker would have to say that the Democrats have good reason for not thinking well of their own chances if he decides to run next year.



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A Nation's Business Interview

What are the prospects of atomic warfare?

We are headed into what you might call an atomic stalemate. This doesn't mean that war is obsolete. Minor wars may and probably will go on by what is usually called conventional means but no nation can depend on all-out war to impose its will.

If there is not much likelihood of warfare on a major scale, how are the differences and tensions between major powers to be settled?

I hope, of course, by diplomacy and by the growth and strength of the United Nations, which might take a generation. But in Korea we already have had an instance where a difference was approached by means of war. There has since been a war in Indochina, again by conventional means. One of our primary jobs in military planning is to be simultaneously ready for the all-out war and also be ready to handle these secondary wars by modern means that are not just the means of World War II dressed up a bit.

Are we ready for these secondary wars now?

I fear they are not being given the attention they deserve. I think there has been overemphasis on atomic warfare.

Military people, who are good thinkers, have been buried in the

sheer necessity of thinking through the implications of the bomb, and trying to plan in regard to it. As a result, we haven't had enough emphasis on how we handle the secondary wars and, more important, how to prevent them from breaking out by being so ready that no one wants to start one.

I cannot see how A-bombs could be used in these minor wars—even tactically—without sooner or later tripping off the main catastrophe. If we should use A-bombs tactically the next thing would be to use them against lines of supply. Inevitably, I think the thing would just grow until we began to bomb cities, both ways.

Do you feel that the Russians understand this?

I think Russians are, above all, realists and therefore I can't conceive that they would deliberately undertake total war or a movement which would be bound to lead into total war unless they felt that they could eliminate us in a single, surprise strike. If they could do that, it would be a strong temptation. But if we maintain a position so that Russia knows that if they trip this thing off, Russia will be devastated, whatever else may happen, then I think there is no danger of their deliberately tripping it off.

We should, of course, maintain enormous strength, enormous re-

taliatory power, no matter how pleasant or soft the Russians may become.

Is a formal agreement not to use atomic weapons likely?

I think there will be formal agreements some time. I am not optimistic that we will have any such agreements early. Russia cannot suddenly alter its entire philosophy and open up its country to an inspection that is really thorough. Russia can't suddenly abolish the Iron Curtain and still maintain its regime, so I do not expect we will have a workable agreement early. But, on the other hand, if the world comes to the conclusion generally, as I think it will, that we must prevent atomic war breaking out even by accident, then I think after a time it wouldn't make too much difference whether there was a formal agreement or not. The actual situation would, in effect, be stabilized. Agreements of various sorts could follow but I think the state of mind has to appear first.

The countries of Europe were so impressed with the dangers of poison gas in the first World War that they agreed not to use it. Could we arrive at the same kind of agreement on atomic war?

That is a good comparison. We were not parties to an agreement to abolish poison gas although in the second war neither we nor anyone



“I cannot see how A-bombs could be used in minor wars—even tactically—without sooner or later tripping off the main catastrophe. The next thing would be to use them against lines of supply. Inevitably I think the thing would just grow until we began to bomb cities, both ways.”

WRONG WAR *continued*

else used it. There was no formal agreement and yet everyone abstained. It is quite parallel to the situation that we have today where there is no formal agreement and yet there has been abstention which I think will continue.

But, let me say this: If gas warfare had been introduced in the second war, it could have been very terrible because powerful gases were developed. Beyond that, we could conceive that biological warfare could be more terrible.

Methods of biological warfare not only have never been used but there has been no national effort to produce such methods on a broad scale that I know of. Such national effort as there has been has been primarily dictated by the thought that we must know about it, we must be alert. We have no great national program on it nor do I think anyone else has.

I think we could say, however, that if there had never been an atom bomb, we would be in about the same position today that we are now in: the means would have been different, but the situation would have been substantially the same because what has happened has not been merely production of the weapons. What has happened is that science has become applied to warfare and has transformed it absolutely and, in my opinion, has rendered it obsolete in the long run.

Does that mean we will develop new types of warfare more thoroughly, such as economic warfare, psychological warfare and social warfare?

Well, if you envisage an atomic stalemate, with minor wars going on by conventional means, it will undoubtedly be accompanied by all of the means of international competition that we have always had. We won't abandon those for some time.

There seems to be so much confusion about the actual effects of atomic warfare that the ordinary man really doesn't know what to expect.

I believe that the Government of the United States should be utterly frank with the American people on this subject.

We should have thoroughly authoritative and complete statements as to what would happen if an H bomb dropped.

I'm completely out of sympathy with a situation where the public learns the facts through wrong channels before the government finally speaks out and tells a little bit.

Now, mind you, I believe in keeping the technical aspects of our weapons secret wherever that knowledge would be of advantage to the enemy.

But, where the Russians undoubtedly know what the situation is on fall-out, what the radioactive effects are and all the rest of it, I see no reason for secrecy.

We tell altogether too much about the details of our guided missiles, of the airplanes we build and so on. The Russians do not need a spy system to find out what we are doing along some of these lines. All they need to do is read our magazines and newspapers.

As a country and as a people, we talk too much about such things. I see no sense in publishing military technical details but I believe that

there are essential things which the American public needs to know.

I believe that when the people are told those things authoritatively and completely there will be a better attitude toward this whole affair not only in this country but throughout the world.

I think that when all peoples of the world, in Russia and everywhere else, face these facts, danger of an all-out atomic war will be greatly reduced.

Isn't the inference then that hydrogen warfare could actually destroy nations as well as cities and perhaps cause serious damage to the world as a whole for generations?

I am not the authority to give you a complete answer to that. Such an answer would require the thought of geneticists in regard to mutations caused and their effect on the population.

It would require the point of view of physicists who know what the radioactive products are and how long they would remain in the soil. It would require the point of view of physiologists who know or can find out what the effect is, for example, of the ingestion of radioactive isotopes over a considerable period.

We are now getting information but my complaint is that we are getting it in fragments.

Is it possible that massive explosions could actually affect the position of the earth itself?

There is no danger of that whatever. There is also no danger of igniting the atmosphere. The night before Alamogordo, Dr. Conant and I were out on the desert where they were working on this first test. The situation just before the bomb went

off was, needless to say, very tense. While we were waiting, a physicist came up and chatted with us. He said, "You know, I am disturbed about whether this bomb might ignite the atmosphere. The conclusion, I know, is that it will not, but I still think we might perhaps have overlooked something and that when this bomb goes off, it might ignite the nitrogen in the atmosphere and eliminate all life from the earth."

That was a comforting thought at that time in the morning but there was actually no danger then and there is no danger of such a result now. The atmosphere is too big and nitrogen doesn't ignite that way. Incidentally, a single heavy thunderstorm releases more energy than very many atomic bombs.

Just the same, if all-out atomic war should come, with hydrogen bombs and all the rest, it would drive civilization back on its knees in a way that it would not recover for centuries. There is no question about that.

Is there any size limit to the bombs that can be developed by using atomic power?

Of course there is a practical limit to the size one might want to handle, but there is no theoretical limit on the size.

That makes it all the more fearsome to a layman.

I know some people have been afraid to tell the full story for fear the American people do not have the determination and moral courage to face up to very grim things. I have no such fear.

The American people do at times go down crazy, wild alleys and they

get all excited about queer things, but on things that are of great moment, when they have the facts and have time to think and after they get over their first confusion of mind, they think soundly and can be depended upon.

Is it not possible that most of the facts have been given out but in fragmentary fashion?

Yes. We now have all the essential facts but there is confusion. The public doesn't know whether to believe the people who say the whole matter has been overly exaggerated or whether to believe the alarmists who say that if a few bombs went off, all life on the earth would cease.

The public wants authoritative statements that it can trust: for example, the extent, from a hereditary standpoint, of the damage by radioactive fall-out or from the standpoint of poisoning the population. The way to find that out is to get a group of competent scientists to report on it carefully. The National Academy of Sciences is making a general study of radioactivity's effect on living organisms.

I'm glad, also, to see that the United States has proposed that the United Nations assemble and evaluate the effects of nuclear radiation from atomic tests.

Is the chief block for full information civilian or military?

I think it is both. We have a civilian-military team in this country and we have a government with civilian power supreme. I'm not placing the blame on any individual, any group or any party. Moreover, I think people in government have been as confused as people anywhere else. They haven't

fully appreciated, therefore, the necessity for getting thoroughly competent and authoritative statements spread on the record.

As far as public statements have been concerned, the development of atomic knowledge is confined pretty much to the United States, Russia, Great Britain and possibly one or two other countries. Is there any considerable body of knowledge in the smaller countries?

Don't forget that small countries produce thoroughly capable physicists, and any person with that knowledge and experience today has enough material so that he can become an expert in the field of nucleonics, atomistics and atomic energy. So, while the main activity has been in the three countries, which you include, and in Canada, thinking about the subject from the standpoint of the physics involved goes on all over the world and has nothing to do with national boundaries except as the flow of information is restricted by security regulations.

What would prevent an ambitious smaller country from using atomic energy for its own purpose and suddenly challenging the world with atomic bombs?

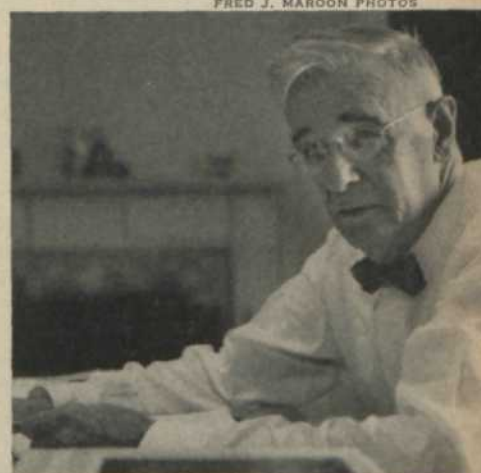
In the first place, they couldn't do such a thing suddenly. They would have to shut down their power plants if they wanted to convert the material in them into bombs. I can't imagine a small country with a few bombs challenging the world.

The same restrictions and deterrents would apply to them as to the larger countries?

Of course, and more so.

END

The government of the United States should be utterly frank with the American people on the effects of atomic warfare.... I believe in keeping the technical aspects of our weapons secret where that knowledge would be of advantage to the enemy. But where the Russians undoubtedly know what the situation is... I see no reason for secrecy.



FRED J. MAROON PHOTOS



You'll hear more of **LIBERIA**

The African republic we founded is becoming a market for American goods and a free world outpost

THE Republic of Liberia—land of great contrasts between the primitive and the modern—may be the pivot on which will swing the future of Atlantic Africa. European and even Asian countries seem to be aware of this. Yet many people in the United States are not even sure where Liberia is. The country is not on the tourist runs.

Liberia is at the southern tip of Africa's western hump. A republic since 1828, it is the one truly independent government on the old Gold Coast. The country was once much larger, but both the French and British chiselled vastly rich lands away from her as recently as the 1920's, under the lack-luster eyes of the old League of Nations. The United States called a halt to that.

Perhaps this was not entirely without some recognition that we, too, needed a foothold on this remarkable continent. Today such men as Juan Trippe, Harvey Firestone, Jr., C.W. White, R.G. LeTourneau, John L. Collyer and Alfred Eggleton are leading the way for at least another dozen U.S. firms which are vying with a score of German, Swiss, Spanish, British and Italian companies for Liberian favors.

And Liberia has many to grant. Her mineral wealth is still virtually untouched. Agriculturally, there is little that modern man wants—other than wheat—that will not grow abundantly in her earth. Most important of all is Liberia's place in the world's economic and political geography—a place which will make her a major prize in the next generation. Her people, from her president down, are friendly but shrewd. Quick to reject any effort leading to exploitation of their resources or their labor, they welcome those who will help develop their country politically or economically.

In 1816, George Washington's nephew, Judge Bush-

rod Washington, Henry Clay, Francis Scott Key, and others formed the American Colonization Society to return freed African slaves to their homelands. In 1820, the first ship—one of several over a period of 20 years—arrived with settlers to buy lands from African chieftains. The chieftains, well used to trading with whites for slaves, began to retake their purchased lands and re-enslave the settlers as soon as the armed American vessels sailed away. This practice developed a considerable friction between the civilized and the native Liberians.

Fifteen years ago Liberia wasn't even a banana republic. Today this country, the size of the state of Ohio, is thinking precociously in terms of all of West Africa as its industrial and agricultural source and for market, the whole of the western world. To examine these changes in Africa I flew thousands of miles and spoke to scores of officials, tribesmen, farmers, lawyers, miners, wives and fishermen in towns and in jungle compounds.

It was Sunday noon on the veranda of a spacious farm house near the village of Totota in Liberia's Central Province. To President William Vacannarat Shadrack Tubman, enjoying his fourth cigar and first mild whisky and soda of the day, the retreat combines the purposes of President Eisenhower's Camp David and the Gettysburg farm. President Tubman, a medium-sized Negro, is a jolly man, but in his easy conversation, he switches swiftly from a happy cackle over a risqué story to more somber national affairs, such as

Bomi Hills mine moves iron ore in cars (right, above) to Monrovia for shipment. Mining problems bring together President Tubman, left, T. P. Thayer, standing, U.S. Geological Survey, and L. K. Christie, president, Liberian Mining Co.



LIBERIA *continued*

hydroelectric plants, the world coffee market—or the country's income from the million-plus tons of shipping registered under Liberia's indulgent flag.

Keenly alert to world politics, President Tubman had sent a delegation to the Asia-Africa conference in Indonesia. They caused many behind-the-scenes difficulties for the communists—perhaps more than any other delegation excepting Kotelawala of Ceylon, who was a delegation in himself.

"As far as Africans and Asiatic communists are concerned," President Tubman told me, "we have nothing in common except that we both have two legs and are not white skinned. A commercial treaty with a communist leads directly to cultural infiltration and the two combine to bring about unendurable political pressures. We simply do not need what they offer. We have a saying that all Liberians were born retired. This is a difficult attitude for communists to comprehend; they are not a happy people.

"There is both a pride and a contentment in being an African Negro that few Americans seem to understand. Our country, our whole West African tradition, is the story of people who have already found their own peace; the story of ancient migrations, wars and cultures. Certainly there was savagery; show me the land where savagery was not."

President Tubman is entering his third term as President. The Liberian constitution provides for a first term of eight years followed by four year terms of re-election. Having unified the country in his first term, he is now industrializing it.

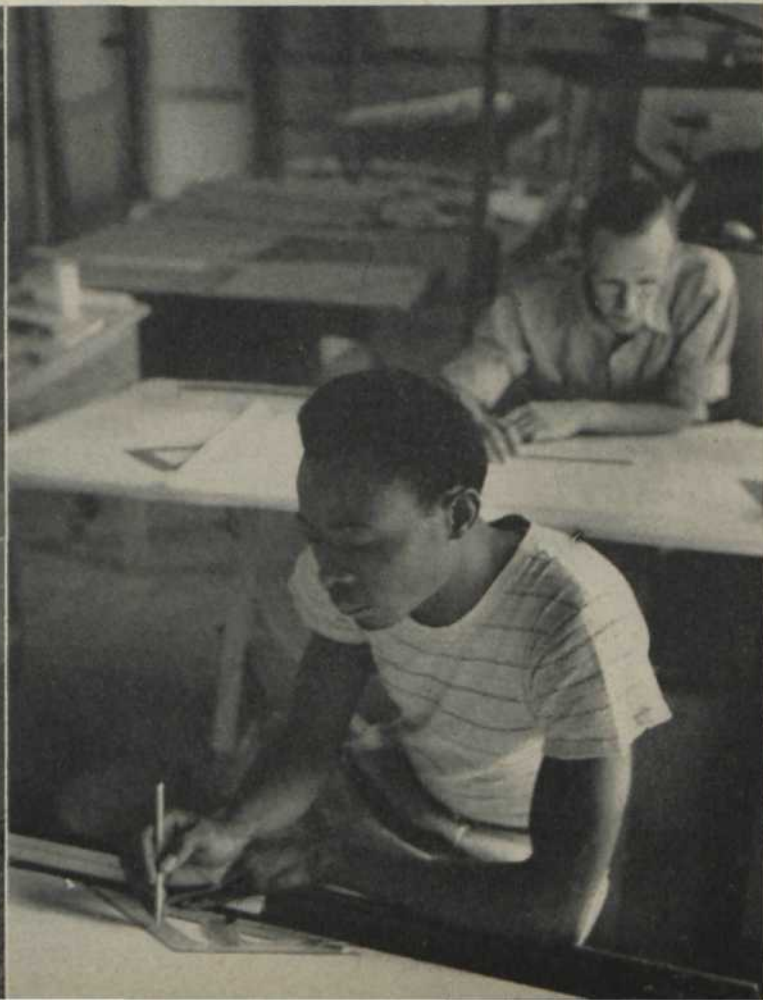
Population is growing so fast they haven't even had



STEEL and concrete, the new Tubman Bridge, 980 feet long, is the first such span across Monrovia's St. Paul River

THIRTY cents a day is considered good pay for unskilled labor in West Africa, and as much as \$2.44 a day is wealth

LIBERIANS make good office workers and supervisors, and at Bomi Hills they are integrated through executive levels





NATIVE artist offering his handcarved statue for sale gives hint of the savage background behind civilized facade



YET Liberians are eager for progress, and symbolic is the country-wide radiotelephone service being developed by Hallicrafters

time to count themselves. An aerial photometric survey is being made to determine Liberia's real population, estimated as low as 2,000,000, as high as 3,000,000. Previously, a four-man team trained in U. S. door-to-door census methods learned that what works in Iowa won't work in the high rain forests where the native indifference to statistics is absolute.

One of the U. S. trained census takers asked a housewife deep in the eastern province near Tchien, "Who is your husband?"

"Husband? I have no husband," she replied as her eyes swept fondly over her six tumbling, healthy children. "I am just happy and have babies."

This is perfectly normal in a country where the women outnumber the men around two to one, where poverty is a matter of semantics rather than economics and where there is no privation as westerners understand it. Children are wanted and are loved by father or mother, quite without regard for the forms of marriage. Polygamy is the rule. There is virtually no promiscuity although sex is unabashed even among teenagers.

Liberia is lushly, humidly, overwhelmingly green.

For 30 or so miles, the coastal lands shelve gently up to 200 or 300 feet above sea level. They are thickly overgrown but can be cut, burned over and cultivated. About 40 miles inland, a sharp escarpment, covered with high forests, rises about 1,000 feet to the rolling Liberian plateau capped by fabulously rich mountain ranges. Trees along that escarpment soar as high as 165 feet on trunks more than 20 feet in diameter.

Flying over the high forests in tiny light monoplanes is like flying over an endless patch of broccoli; it is an impenetrable bulbous sea, deceptively serene, as deadly as the millions of snakes twisting over its hot, humid floor. Seventy-three types of these snakes have

been classified so far. Of these, 12 are harmless; four are of the python or constrictor family. For the remainder, there are no effective antivenins—except for the black cobra, locally known as the mamba, for which there is one if used within four minutes of the bite.

But Liberia is not just a country of high forests, snakes and jungle scenes. The men carry rifles or shotguns, not spears; no bush-headed savages lurk on the trails and the drums are less full of menace than a juke box in a beer parlor. It is mostly a hospitable land of farmers, miners and traders. Even the sinister secret societies of the stealthy West African Leopard Men are just fading memories.

The city of Monrovia is on a point of land formed by the muddy Mesurado River on one side and the clear Atlantic surf on the other. It is alternately colorful and squalid; eroded houses of galvanized iron stand by new white stuccoes; shiny Buicks flash around the score of paved roads in and around Monrovia and along a couple of fair unpaved roads into the interior. Yet a few feet from one of the city's modern hard-topped streets there was a four-foot spire of rock sticking up through the middle of a twisting dirt side street. The rock had been packed around with slow burning wood for two or three days and then, shimmering hot, was suddenly drenched in cold water. Under such treatment a rock splits and splinters away.





Around the corner on Water Street is the market for flowers, fruits and vegetables; country cloth, Coca-Cola and Belgian shotguns; a Texaco filling station competes with an out-of-doors Saville Row where long lines of Singer sewing machines clack away industriously on everything from men's shorts to city dresses.

European clothes mix with native dress. Women as a rule are turbaned, their bodies casually covered out of contempt for the

(Continued on page 63)

BALLOONING GOVERNMENT OUTGROWS BUSINESS

WHILE POPULATION DOUBLED

government employment multiplied		8 TIMES
government payrolls multiplied		12 TIMES
government expenditures multiplied		71 TIMES
public debt multiplied		89 TIMES

AMERICAN business and industry are virile, dynamic and in a period of continuing expansion but, compared with growth of government, the private economy seems sluggish.

Explosive government growth is reflected in a comparison of retail sales with total government expenditures for 1953 and 1929. In 1953, the peak year of our economic history, the nation's total retail sales were three and a half times those in 1929. Total government expenditures in 1953 were ten times those in 1929.

Twenty-four years is an extremely short time in history. Let's see what can happen in merely two years. Between 1951 and 1953, retail sales increased 11.6 per cent; government expenditures increased 29.1 per cent.

Whether you believe all government is an evil, or that all the world's evils can be cured by government, a comparison of the growth of government and business arouses concern. That concern will be even greater for your children. Aside from military costs, the growing burden of government comes from the support of institutions and services—of which our grandfathers never heard.

Demand for these services comes from the people rather than from government officials. In the long run a country gets the kind of government it deserves. Unless we are alert we may deserve too much.

Dependable facts on business were largely lacking before 1900. Facts were sketchy or lacking on government activities, too. So comparisons of the growth of government and business must largely begin with this century with special stress on the past 25 or 30 years and a forward look to 1960 and 1965.

When most people think of government, they think of the federal government. In 1932 it accounted for only 32.6 per cent of our total cost of being governed. By 1950 this proportion had grown to 60.7 per cent. State and local governments account for the rest. They are growing rapidly and continuously, too, particu-

Vergil D. Reed, the author, is vice president and director of research for the J. Walter Thompson Co. advertising agency, and is a contributor to many technical and professional journals. He has worked for the Census Bureau and the War Production Board.

larly city governments. New York City's government expenditures in 1950 were almost three times as great as the federal government's expenditures in 1900. Pennsylvania's government in 1950 spent more than twice as much as the federal government spent in 1900, and California almost twice as much. We now have 116,743 government units, ranging from the federal government and state governments to 17,202 townships and 12,319 special districts of various kinds.

These governments are taking a bigger and bigger proportion of our output. This trend has been particularly marked over the past quarter of a century.

The total value of goods and services we produce is known as the gross national product. How do increases in this over-all measure of our economic growth compare with the increases in government expenditures?

Our national product in 1953 was 15.5 times that of 1902, but total government expenditures were 71.4 times those of 1902.

While our total farm income in 1953 wasn't quite four times as great as in 1910, our federal government expenditures were more than 107 times as great. Comparable figures for total government expenditures for 1910 are not available.

The comparative growth of government and private employment between 1900 and 1953 is most revealing, too.

Manufacturing is our biggest employer with about a quarter of our total employed persons.

While we had three-and-one-half times as many manufacturing employees in 1953 as in 1899, we had eight times as many government employees in 1953 as in 1900.

As for private employment generally, it was two-and-a-third times that of 1900.

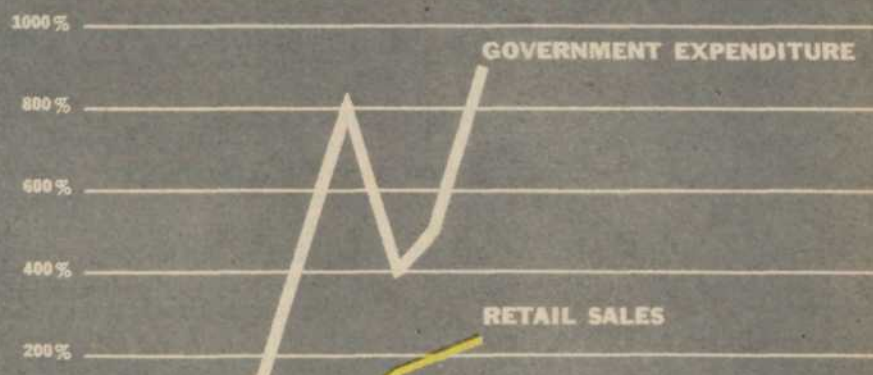
Government employed 1,164,000 people in 1900, or about one out of 24 of our total employed persons.

In 1953 it was one out of every 6.5 of our employed persons. We had roughly 3,500,000 more people working for government than on our farms.

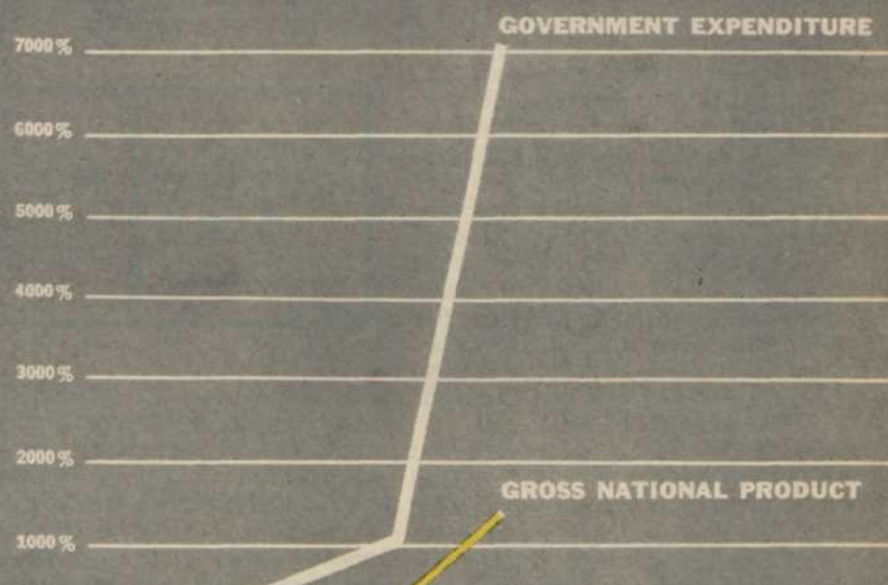
If we take federal government alone and even exclude all the military, the growth is still startling. In 1900, there were fewer than two federal workers per 1,000 of our population. Today, we have about six, or more than three times as many per 1,000 of population.

Dependable data for comparing public and private payrolls is not available before 1913. Public payrolls have increased at a much faster rate than private payrolls. In the federal government, average annual pay

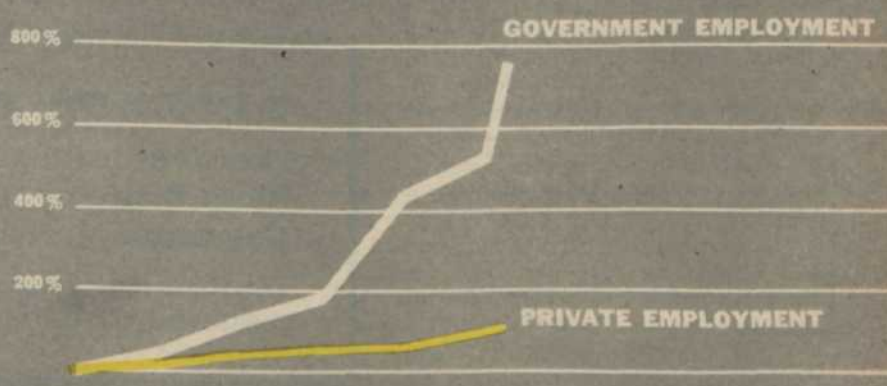
From 1929 to 1953
retail sales went up
nearly 300 per cent but
government expend-
itures jumped 900
per cent



Government expend-
itures in 1953 were 71
times those in 1902.
Gross national product
increased 15.5 times



While private employ-
ment increased 117 per
cent from 1900 to 1953,
government employ-
ment went up 760
per cent



BALLOONING GOVERNMENT

continued

per employe has been consistently slightly higher than for private employment, except for certain years during the two world wars. With few exceptions it is slightly lower for state and local governments than for either private or federal employment.

Government payrolls more than trebled between 1913 and 1932. They doubled between 1932 and 1942, then more than doubled between 1942 and 1950. However, payrolls as a share of total government expenditures declined from 47 per cent in 1913 to 37 per cent in 1932 and 20 per cent in 1942, then increased to 30 per cent in 1950. They have remained near that level since. During the period 1913 to 1932, state and local governments increased their employment and payrolls more than did federal government. Between 1932 and 1942, federal expansion was much faster due largely to military expansion. Military personnel had increased 2,100,000 and federal civilian personnel by 1,200,000, while state and local government personnel increased by 600,000. Between 1942 and 1950, federal employment decreased 500,000; but state and local government payrolls had increased by almost 1,000,000 employes.

Average earnings for government employes doubled between 1942 and 1950, with military pay scales going up considerably more than those for civilian employes. For civilian employes the increase was 86 per cent in federal and 75 per cent in state and local government. Government payrolls were 8.4 per cent of our total payrolls in 1913; 16.2 per cent in 1932; 18.9 per cent in 1942; 30.2 per cent in 1945; and 15.2 per cent in 1950.

Construction figures available from 1920 show the growth of public construction outstripping that of private construction, except during the immediate postwar period when the pent-up demand caused by wartime shortages and controls was released. Then, private construction of all kinds rose. In 1953, the dollar volume of private construction was about four-and-a-third times that of 1920, while that of public construction was seven-and-a-third times as large.

Comparisons of private and public construction trends mean less than most other comparisons for two reasons:

First, the entire construction industry only employs roughly a six-

teenth of our total employed; while agriculture employs an eighth and manufacturing employs a fourth.

Second, normal trends in construction are deliberately counteracted by government's use of construction as an economic control device. Government construction is kept relatively low in prosperous peace times, and private construction is encouraged. In depression periods, public construction is greatly expanded as an economic stimulant—particularly to employment. In war times, government drastically restricts private construction and expands public construction for military purposes.

Whether we look at it from the standpoint of expenditures, employment, payrolls, or any other measure, government growth far exceeds that of business or the total economy. It is also surprisingly faster than population growth. In the first half of the century our population doubled

increasing educational costs. The latter calls for increasing pension, medical, and other relief costs. The major reason for government costs so far outstripping population growth is, of course, the new and expanded government services demanded, expected, or required.

Government's share of our total capital goods and capital outlay has grown rapidly, too. About one out of every five dollars of our capital assets—excluding roads, streets, and most of our military equipment—is owned by government. According to a recent Hoover Commission report, the federal government owns a fourth of our total land acreage. Our defense inventories alone at the end of last year were one-and-a-half times the total inventory of all our factories.

Government capital outlay is the amount spent for such items as construction of facilities, military equip-

PUBLIC DEBT

1902, each American owed \$43

1955, each American owes \$1,900

(76,000,000 to 150,700,000); our government expenditures multiplied more than 71 times; our government employment multiplied eight times.

That government should grow as population grows is obvious. There are more people to govern. That government should outgrow population at such an astounding rate is a real cause for concern. Not only does the total cost of government grow greatly but the cost per capita increases at a rapid pace.

Changes in the age characteristics of the population account for a small part of the growth of government costs. Far greater proportions of our population are at the two extremes of the age range—the very young and the aged. The former calls for

ment, land, buildings, and durable equipment. In 1913, total government capital outlay was \$696,000,000 and made up 23 per cent of all government expenditures. By 1942, capital outlay had climbed to \$19,500,000,000 and was 39 per cent of government expenditures. About 60 per cent of the outlay in 1942 went into equipment, mostly military. Cutbacks in military needs brought the outlay in 1950 down to \$11,900,000,000 and 17 per cent of government expenditures. With the Korean War, total government outlay rose to \$24,900,000,000 and 25 per cent of total expenditures. Total government capital outlay in 1952 was 36 times that for 1913.

Not only is government growing

DEFENSE DEPARTMENT

Has three fourths of government's payroll

More than sixty per cent of total budget

Consumes one seventh of national income

Yet, over the long run, government spending for civilian purposes has risen faster than military costs

faster than business but it is getting more into business—competing with private enterprise.

The Hoover Commission couldn't even find out how many types of business the federal government is in, how many employes and facilities are involved, how much of our money is invested in them, or what their total business volume is. We do know that by 1945 there were 101 federally owned corporations. Some of these produce goods and services for government use; others for government employes; still others for the general public. No state, county, city, or other local government businesses were included in the Hoover report.

The wholly owned credit agencies of the federal government have multiplied their loans by two and their guarantees by ten in the past 15 years. Housing is increasingly subsidized, with federal aid multiplying six times since 1941. Foreign aid has increased from practically nothing in 1941 to \$8,200,000,000 this year. Credits and guarantees to agriculture now stand at \$5,700,000,000. Our federal tax bill for stabilizing and subsidizing agriculture since 1932 adds up to \$40,000,000,000. That's far more than the total retail sales of the United States in 1933!

The insurance business of the federal government is almost as great as the private life insurance now in force—\$324,600,000,000 as compared to \$333,000,000,000 on June 30, 1954.

In several industries and professions the proportion of total employes who are government employes is surprising. Here are a few:

Forestry and fisheries . . . 20.8 per cent
Construction 9.6 per cent
Street railways
and buses 24.8 per cent
Medical and health . . . 27.4 per cent
Finance and real estate . 3.0 per cent

Government has grown far faster than our ability or willingness to pay for it out of current income. To escape some of the pain of our prodigality, we have burdened our children and grandchildren with a public debt which is still growing.

Between 1902 and 1953, our total government debt multiplied itself almost 89 times. Our federal debt multiplied 226 times; our state debt, 29 times; and our city debt, 8.4 times.

In 1902, each American owed only \$43 of public debt. Each new 1955 model American is being delivered with a bassinet, a birth certificate—and a debt certificate for approximately \$1,900. If yours is a family of five, your part of that total government debt is now \$9,500.

The expenditures of government

	1932	1950
FEDERAL	32.6%	60.7%
STATE & LOCAL	67.4%	39.3%

Yet New York City's government, in 1950, spent almost three times as much as the United States government spent in 1900

Why does government grow so fast and cost so much? The easiest and most usual answer is military costs, but over the long run, civilian costs have grown faster than military costs.

Inflation or higher prices have accounted for a considerable part of the rise in total number of dollars going to government, but they are the same dollars the rest of us use to pay wages, buy goods and services, and pay taxes. Business and government use the same dollar, so prices rise for both in the same proportion and do not affect the rate of growth of either. It is the rapidly growing proportion of the national product taken by government that concerns us—the growing proportion of total employment, total payrolls, total expenditures, total income, and total debt claimed by government.

There is hardly a government function at any level that has decreased during this half century—or prior to it for that matter. Instead, old services have expanded at varying rates and many new and expensive ones have been added. They, too, continue to grow. The biggest percentage expansion has come in such activities as health, public welfare, education, conservation, regulation, and public works—particularly in federal government.

What about the future? Studies recently made by the National Planning Association and the Twentieth Century Fund estimate the proportion of the national product going to government in 1960 as 17.2 per cent and 19.2 per cent, respectively. The Staff of the Joint Committee on the Economic Report estimates the pro-

portion for 1965 as 18.1 per cent. For comparison, the proportions of the national product going to government in certain years were: 9 per cent in 1929; 15 per cent in 1939; and 28 per cent in 1953.

All three of these organizations show declines in the proportion of our national product going to government in the future, but the total absolute amount going to government will continue to rise. All three assume that our economy will grow so fast that the share of our total production taken by government will decrease while still allowing a liberal growth in the amount of taxes collected. This would be a reversal of a long-time trend in which government has not only taken growing amounts but growing shares as well.

Whether or not these encouraging estimates materialize will depend largely upon citizens and groups of citizens. If we go to Washington, the state house, or city hall—or send our representatives—to ask for a few new or bigger government services, subsidies, or aids, those estimates aren't going to come true.

History makes a pretty convincing case proving that bad government grows out of too much government. Perhaps it's really true that every country has the government it deserves.—VERGIL D. REED

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EASTPHOTO

BECAUSE China lacks food-producing land, she looks with a covetous eye toward the rich soil of Asiatic Russia



CHOU chats with Indonesian Premier Sastroamidjojo. Red Chinese are shaking USSR's influence on nations of Asia



CHINESE resent Soviet technical experts' high pay. New Piho River dam, below, symbolizes industrialized China



RUSSIA FEARS RED CHINA'S STRENGTH

Here are the developments in these powerful communist nations which could lead to a break

THE KREMLIN now fears that, in Red China, it has a dragon by the tail.

For Red China is no Soviet vassal like the satellites in Eastern Europe. Red China is a partner, junior in status, but the kind of partner that, cunning, patient, insatiable, wants to take over the business.

Although the Moscow-Peiping alliance seems to be strong, fissures already appearing are forcing western policy makers to think toward the time when Sino-Soviet dissension may erupt into an open break.

Certainly what happens to the Moscow-Peiping axis can not only change the balance of power in today's world politics but can also, in great measure, determine whether our own future holds total war, armed truce or tentative peace.

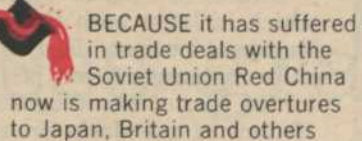
Since Stalin's death, Mao Tse-tung, remorseless master of the Chinese People's Republic, has regarded himself as the foremost exponent of Marxist doctrine. He affirms that Chinese communism rather than the Russian variety is the pattern that should guide "colonial and semi-colonial peoples," his phrase for Asia, Africa, the Middle East. More loyal to Marx than to Moscow, he combines his own devout communism with the fiery nationalism of a China Firster. His dreams for Red China are boundless. He sees it as the natural leader and liberator of all the yellow, brown and black races of mankind.

To fulfill Mao's grandiose aims,

which are shared by his potential successors, Red China cannot remain a backward country with an industrial capacity below Belgium.

Hence to transform China into a modern industrial society Mao has been trying to make the mainland over into the economic image of the USSR. In his view it has been the only possible model—not just because it is a communist state but also because Russia, like China today, was an overwhelmingly agricultural country that within a generation found short cuts to industrial might. Mao has adapted to the Chinese scene the entire paraphernalia of the Soviet Five Year Plans, the stress on heavy industry as the source of military strength, together with Stakhanovism in mine and factory. He is moving rapidly toward collectivization on the farm. He has glorified technical education to such an extent that nearly 50 per cent of the students in Red China's 193 institutions of higher learning are enrolled in engineering courses. Ruthless regimentation enforced by terror, the secret police, brainwashing, and the threat of the slave labor camp, compel the Chinese people to submit to today's privations in exchange for promises of plenitude tomorrow.

However, in the attempt to emulate the Soviet Union's example, Mao has had to ask Russia for the economic and technical assistance which it is supplying in the smallest quantity possible—just enough to



RUSSIA is unhappy about Chinese effort to dominate the communist movement all over Asia. The Chinese have demonstrated that they can be masters of guile and intrigue



RUSSIA FEARS

continued

maintain hope for more. The realists in the Kremlin do not relish the prospect of a Red China that has the up-to-date technology from which industrial and military power derive. Nor are they allured by the vision of Red China as the spiritual and temporal fountainhead of world communism—first in the underdeveloped areas and then everywhere else.

The Kremlin therefore is dealing with Red China on the basis of giving with one hand and taking away with the other. The Kremlin is particularly seeking to slow up Red China's economic development while pretending to foster it.

For example, in China's program to industrialize, the Soviet Union is involved in 156 projects (91 new construction, 65 improvements, renovations, extensions). For this purpose the USSR granted Red China \$430,000,000 in credits (\$300,000,000 in 1950-51, another \$130,000,000 in 1954) at one per cent interest over a period of six years.

But this sum is particularly small when compared with the Soviet loan of \$470,000,000 to Poland last year, or the \$300,000,000 loan (worth more than \$600,000,000 in today's prices) to Chiang Kai-shek in 1937.

With funds received from Moscow, Peiping buys Soviet oil drilling rigs, rails, turbines, pumps, spindles, coal and ore cutters, scoops and the like and pays the 15,000 Soviet technicians and advisers now in China's mines, factories, garrisons and rice paddies. In return, the Soviet Union at first obtained mainly labor battalions.

More recently it has been getting tungsten, antimony, copper, uranium, other metals, mica, sulfur, soybeans, pork bristles, wheat, other farm products, and minerals along

with rubber which China purchases from Ceylon and then transships to Russia.

Under a barter arrangement which includes both Russia and its European puppets, Red China typically exchanges a ton of tea leaves for ten tons of Slovakian steel plate; 19 tons of mandarin oranges for a Russian light truck, 1.2 tons of dried eggs for 30 tons of Romanian oil.

China is regularly on the short end of all transactions. The Soviet bloc exports to it at prices above the market average and imports from it at prices below that average. Then, too, there is the curious tempo of Soviet deliveries to Red China. Finished goods such as tractors or tanks tend to arrive on time. But basic equipment, the steel and machine tools which Red China requires to develop its own productive capacity and war potential, arrive behind schedule more often than not.

Nor is this a result of shortages in the USSR. The two economic fields in which Russia has excelled are those of steel where it has a capacity of some 40,900,000 tons, as against 2,200,000 tons for China, and machine tools of which the Soviet Union is annually turning out an estimated 600,000 as against virtually none in China. Indeed, the high precision lathes displayed last year at the Peiping Industrial Exhibition as a sign of China's industrial progress had the Russian markings painted out and Chinese lettering substituted.

The Soviet Union, however, has helped Red China to complete its industrial showpiece, the Anshan Iron and Steel Works, with its modern rolling mill and blast furnaces, to construct China's first automobile plant and to advance other undertakings from oil exploration in the Gobi desert to the manufacture of pharmaceuticals.

Generally the USSR wants China to remain industrially dependent looking to the Soviet Union for replacements and parts.

Red China's restiveness under this treatment is reflected in the desperate nature of its trade overtures to Japan, the United Kingdom, West Germany and other nations.

In all of this there is a very human source of friction. The Soviet experts in China, the geologists, metallurgists, engineers, agronomists, chemists, gunnery officers and the like, are paid nearly 11 times the salaries of their Chinese opposite numbers. They have top priority on the best dwellings. They shop incessantly for Swiss watches, Chinese jade, Indian fabrics, American fountain pens, German cameras and for

British woollens which they have made up into suits by Chinese tailors. When the Soviet contingent first came to China, they wore the burlap-bag type of apparel; now they have a Bond Street elegance.

They also ride in limousines with curtains drawn against the taunts of Chinese youngsters who call them "dirty big noses," an ultimate insult. About 16 months ago mutters of resentment against the spectacle of Russian men and women buying avidly in the stores of Peiping, Shanghai and other cities prompted Moscow to order its representatives to be more discreet.

In day to day working contacts the Russians have been coached to be careful about offending Chinese sensibilities. Yet, to the mechanically minded Russians, the Chinese are primitives; to the Chinese, still conscious of a culture that goes back 4,000 years, the Russians are barbarians.

Meantime, battering at the very foundations of Sino-Soviet unity are these three rude and elemental facts:

1. The population of Red China is expanding faster than ever before at the very time that its ability to feed its inhabitants, even if their number were to remain static, is declining toward a new low.

2. The frontier between the USSR and Red China is the longest, most thinly peopled in the world.

3. The Chinese, to provide living room for their new millions, will be pressing northward, year by year, spilling over into the Soviet Union's Asiatic territory.

Red China's population, now around 590,000,000, is increasing at the rate of around 26 a minute, or 37,000 a day, or 13,700,000 a year. By 1970, it will be around 800,000,000 as against 260,000,000 for the USSR. Neither the famines of recent years, nor the staggering casualties in Korea, nor political liquidations have arrested this trend to any marked degree.

The explanation basically is simple enough. The Mao regime has reduced death tolls by introducing rudimentary health and sanitation measures. Midwives in delivering babies now wash their hands in antiseptic soap, and use sterile cotton cloth. Antibiotics, such as penicillin, reduce fatalities from virus and other infections. Mosquito breeding grounds are sprayed with variants of DDT. Flies are swatted—a novel idea in the Orient. Medical certificates, attesting to the absence of contagious diseases, are required before a Chinese can go swimming in

(continued on page 58)

THROW AWAY your business grammar

The New York Life Insurance Company spent four years studying ways to make its letters more effective. Here is what it learned



EVERY letter you write is a personal contact—or should be.

But a study showed New York Life that many business writers not only failed to get their ideas across but actually irritated customers. They determined to do something about it. Effective letters, they found, were those in which the writer wrote as he would speak, rather than as the books said was correct. They developed four simple rules, put them into a sound-slide film. **The script says:**

AN IMPORTANT segment of American life—business and industry—discovered that its written communications, most particularly its letters, were not doing the job they should.

Surveys revealed that many people didn't understand the things many companies were trying to say in their letters. Because they didn't understand, the attitude of many people toward these companies was one of grave suspicion, or downright annoyance! The life insurance business was faced with this problem.

New York Life set out to do something about it. Our study of our letters showed two important reasons why our readers were not understanding us as we wanted them to. Both were reasons of language.

The language of many of our letters was a combination of technical terms and commercialese.

"Technical terms and commercialese." We had given our problem a name. The next step was to see what we could do about it.

It was generally agreed that, ideally, the language of our letters should be the contemporary speech of the United States. It should be the language we use when we talk with one another. Each age speaks its own language, and this is the language of ours.

We knew that letters written in this language would be understood. But we also knew there was one great obstacle to the unreserved use of this language.

Life insurance, like many other businesses and professions, is a technical operation. Because of this it employs certain technical words and phrases which many people do not understand.

The technical language of life insurance is further complicated by a great body of legal language. The policy contract is an example. It is written in technical, actuarial and legal terms; defined not only in the dictionary but in the law. The words are frozen in meaning. For the protection of the policyholder and the company they must mean the same when the policy is written in 1954 as when it expires in the year 2000.

While these terms may be perfectly understandable to the lawyers and actuaries with whom the company

communicates, they are difficult for the uninitiate to understand. From this contract, life insurance letters are likely to pick up their language and tone.

The use of this language produces letters like this:

Dear Mr. Blane:

Surrender of the policy is permissible only within the days attendant the grace period on compliance with the citation relevant options accruing to the policy so we are estopped from acquiescing to a surrender prior to the policy's anniversary date. We are confident that an investigation relevant to the incorporation of this feature will substantiate that the policy is not at variance with policies of other companies.

Such letters in turn brought replies like this:

28-38 Clinton St.
Zanesville, N. J.

Dear Sir:

I have received your letter. If you will explain what you mean, I will try to do what you ask.

Yours truly,
Henry Blane



business grammar *continued*

Or replies like this:

Dear Sir:

I have your impertinent letter of June 7, in which you state that you can't explain more clearly the things I want to know about my insurance policy. You say you have answered my questions. You may think so, but I can't make head or tail out of your explanation. I am not going to ask you to try again because I feel that you have achieved maximum confusion. Perhaps this is a matter for the state insurance department.

Sincerely yours,

John W. Galt

P.S. I showed your letter to my brother who is a PhD and he can't understand it either!

Could anything be done about commercialese? Unlike the technical language, we could find no valid reason for continuing to use it.

We felt that we could, and should, eliminate commercialese entirely from our letters.

From our study, four principles of effective writing

were evolved. These four principles are the first steps toward better letters.

1. Use your own language. Forget business English. The proper language of business is your own language. It is the language we use with one another in our homes and across the back fences. It is the language your readers will best understand because it is their language, too. Use this language with only such technical terms as may be absolutely necessary and you will find that you are getting your message across.

2. Write your own way. Don't try to write a letter the way you think someone else wants it written. There is no such thing as a standard letter. Develop your own style. Make your letters distinctively you.

3. Don't worry too much about grammar. The way a word is used is more important than the way a book of grammar says it should be used. The rules of grammar reflect only yesterday's usage.

4. Let your own personality show in your writing. The personality of a company is the extension of many individual personalities. As a letter writer you are one of these important personalities.

These four principles will help all of us become better writers. In addition to these four principles there are two points of actual technique which we will find useful as writers.

We know that all effective communication has two important qualities. It is clear. It has force. This is particularly true of letter writing.

Now, a piece of effective writing may have other qualities in addition. It may have warmth, for example, or splendor, or color.

A piece of effective writing may reflect many quali-

Most people like these words:

ability	confidence	excellence	ingenuity	practical	substantial
abundant	conscientious	exceptional	initiative	praiseworthy	success
achieve	cooperation	exclusive	integrity	prestige	superior
active	courage	expedite	intelligence	proficient	supremacy
admirable	courtesy	faith	judgment	progress	thorough
advance	definite	fidelity	justice	prominent	thoughtful
advantage	dependable	fitting	kind	propriety	thrift
ambition	deserving	genuine	lasting	punctual	truth
appreciate	desirable	good	liberal	reasonable	unstinted
approval	determined	grateful	life	recognition	useful
aspire	distinction	guarantee	loyalty	recommend	utility
attainment	diversity	handsome	majority	reliable	valuable
authoritative	ease	harmonious	merit	reputable	vigor
benefit	economy	helpful	notable	responsible	vital
capable	effective	honesty	opportunity	salient	vivid
cheer	efficient	honor	perfection	satisfactory	wisdom
comfort	energy	humor	permanent	service	you
commendable	enhance	imagination	perseverance	simplicity	yours
comprehensive	enthusiasm	improvement	please	sincerity	
concentration	equality	industry	popularity	stability	

Most people dislike these words:

abandoned	complaint	flagrant	improvident	premature	stunted
abuse	crisis	flat	insolvent	pretentious	superficial
affected	crooked	flimsy	in vain	retrench	tamper
alibi	deadlock	fraud	liable	rude	tardy
allege	decline	gloss over	long-winded	ruin	timid
apology	desert	gratuitous	meager	shirk	tolerable
bankrupt	disaster	hardship	misfortune	shrink	unfair
beware	discredit	harp upon	muddle	sketchy	unfortunate
biased	dispute	hazy	negligence	slack	unsuccessful
blame	evict	ignorant	obstinate	smattering	untimely
calamity	exaggerate	illiterate	opinionated	split hairs	verbiage
cheap	extravagant	imitation	oversight	squander	waste
collapse	failure	immature	plausible	stagnant	weak
collusion	fault	implicate	precipitate	standstill	worry
commonplace	fear	impossible	prejudiced	straggling	wrong

ties. But these many qualities do not concern us primarily in our efforts to make ourselves understood.

The twin qualities with which we are most concerned are clarity and force.

Clear writing is easy to understand. There is no doubt in the reader's mind about the precise shade of meaning intended by the writer. Clear writing is direct. It is simple and unobscured.

The secret of this kind of writing is to give your reader your ideas one at a time. When you do this, each idea will stand out with the clarity of a single star. When you have many ideas to convey resist the temptation to link one idea to the next with such words as *and, but, for, or, nor, moreover, however, accordingly*.

Too many connectives bewilder the reader by leading him through a verbal maze.

Even the most technical explanation can be made clear if you will present your reader with your information one idea at a time.

When you come to the end of one idea, one thought, put down a period—and begin a new sentence.

Not like this:

Dear Mrs. Cragg:

I am glad to have this opportunity of answering your question and from what you say I am sure your son will finally receive the money if anything should happen to you. The money will not be paid direct to your son by us, but your Will will have to pass through the proper legal channels to have an executor appointed, and after this is done we will pay the money to the executor of your Will and he or she will then see that the money is paid to your son.

But like this:

Dear Mrs. Cragg:

I am glad to have this opportunity of answering your question. ~~and~~ From what you say I am sure your son will finally receive the money if anything should happen to you. The money will not be paid direct to your son by us. ~~but~~ Your Will will have to pass through the proper legal channels to have an executor appointed. ~~and~~ After this is done we will pay the money to the executor of your Will. ~~and~~ He or she will then see that the money is paid to your son.

Your reader deserves to have the information he wants presented to him so he can understand it easily.

Your reader will thank you for it.

Dear Sir:

I don't know very much about insurance, but your letter was so clear that I understand completely now the options which are available to me in connection with the proceeds of the insurance my late husband carried with your company. I am very grateful for your help.

Sincerely,
Mrs. Anita Cragg

(Continued on page 82)

OVERSEAS

Mackey Airlines' run to the Bahamas is fun for the customers but twice the fun for the 47 people who keep it flying



SOLID lines mark existing routes of Mackey Airlines. Proposed Cuban route is represented by dotted lines



TYPICAL of things which make overseas run fun for Mackey passengers are the after-trip refreshments which are served at the Nassau airport

THERE'S an airline in Florida that offers a foreign flight over Atlantic waters that almost anyone can afford. It takes only a little more than an hour to get there. The ride costs only \$15 each way.

You don't have to bother with luggage. You don't have to worry about a passport. You don't even have to wear a coat.

All you have to do is climb aboard one of the airplanes operated by Mackey Airlines, which bills itself as the smallest international air carrier. Planes take off on four round trips a day from Fort Lauderdale and West Palm Beach, Florida, and fly to Nassau in Britain's Bahama Islands.

Mackey claims to provide more fun per passenger mile than any other airline, and this may well be the case. When I took the flight recently, the line served cocktails on the way over and daiquiris at the Nassau Airport—all on the house. By then, the passengers were well acquainted and calling each other by first names.

The trip back was even more in-

formal. Women passed around the day's buys in cashmere sweaters, doeskin gloves and woven straw hats; men compared bolts of British woolsens and liquor, complimenting one another over their bargains. An Iowa schoolteacher bought five bottles of Scotch at \$3.50 each and claimed to have saved enough to pay for his \$15 flight back.

Mackey sells the round trip for \$30 on a 30-day excursion rate and bases its operation mainly on the new low-cost summer vacation trade which caters to secretaries and schoolteachers.

Mackey flourishes on a package tour. Its highlights include rides in Bahamian carriages with a fringe around the top, sight-seeing trips to historic forts where Spanish buccaneers once holed up, dips in the surf at Paradise Beach, and a cruise in a glass-bottomed boat through the Marine Gardens to see the bright colored tropical fish and fantastic undersea vegetation.

There are drinks on the palm-lined terrace of the fabled British

Colonial Hotel, where rooms in season run to \$25 a day. Here in the summer a \$60-a-week secretary can live like a duchess in such a room at about \$11 a day. Visitors also stay at the Prince George, the Royal Victoria and the Fort Montagu Beach Hotel on Mackey package tours and the prices run from \$64 to \$83 a week, everything included, according to the hotel.

If Mackey Airlines is fun for the customers, it's twice as much fun for the 47 people who keep it flying. The line is the dream-come-true of President Joe Mackey, barnstormer, stunt flier, fighter pilot and former boss of the Air Transport Command's wartime Fireball air supply route to Africa and Asia. It is also the dream-come-true for all his employees; everybody owns stock.

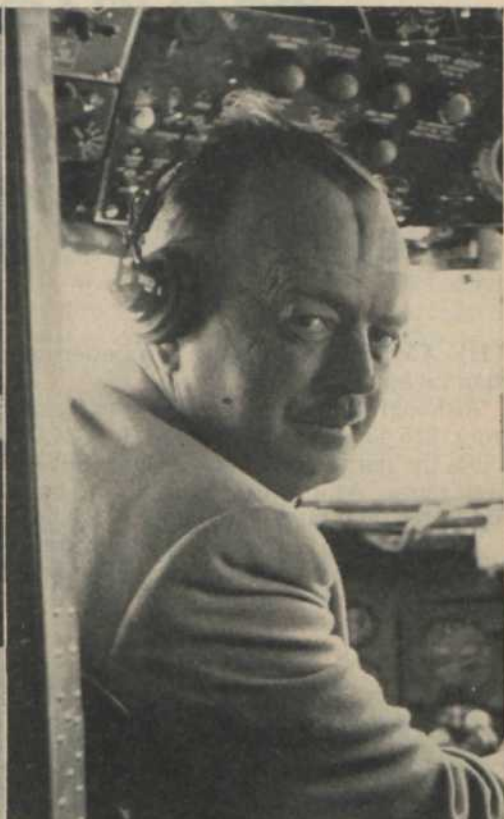
Everybody works hard to keep the line going. It is not uncommon to see the president, executive vice president, secretary-treasurer and traffic sales manager handling baggage for a plane load of Nassau-bound passengers. There isn't an

AND BACK FOR \$30

EGHERS—BLACK STAR



NO JOB is too big or too small for hard-working Mackey personnel. Example: Company executives Povey, Popham hustle freight into a waiting plane



VETERAN pilot Joe Mackey, head of vest-pocket airline, thinks a boom in Bahamas will boost his own trade

hour of college credit among the officers of the company. They come from all ranks—barnstormers, grease monkeys, baggage handlers—and they don't stand on ceremony where their own money is involved.

Henry Johnson, the traffic and sales manager, is a one man ground force. Henry often books the passengers, makes out the tickets, collects the money, loads the baggage and handles all of the paper work that goes with customs clearances. In his spare time he partitioned the company offices, put in a new cork floor, installed a new exhaust fan, helped take care of three children and the family goat.

He also handles public relations and canvasses the area for customers. Last season, Henry and two assistants canvassed trailer courts, small hotels, doctors' and lawyers' offices and stores all over Fort Lauderdale. This grass-roots dragnet technique helped keep the company's planes 60 to 70 per cent full.

John H. (Pop) Popham, one of the mainstays of the line, wears a

hat he can turn four ways. He is secretary-treasurer, superintendent of maintenance, director or baggage handler, as the occasion demands. In World War II, Pop was superintendent of maintenance at the Miami Army Air Field, bossing as many as 5,000 men. Early in 1953, Pop and two mechanics became the maintenance department of Mackey. He is the fourth largest stockholder of the company and has his own prosperous aviation supply business.

A job with Mackey Airlines appeals to pilots. Bob Tichler, former Hump flier who is director of aviation, says he has hundreds of applications from pilots all over the United States, many of them plane captains with plenty of seniority on the big airlines. Some even offer to take a salary cut to come to work with Mackey. Bill Brannian, one of the Mackey pilots, explains why.

"All of the lay-overs are at home. Much of your regular airline flying is at night. Here I never fly in anything but broad daylight. I'm home with the wife and kids every eve-

ning. I'm a slipper and pipe guy now. I've been flying for airlines since 1942 and married for the past ten years, but this is the first time I've dared buy a home."

The pilots say they like the security, the year-round job in the balmy climate and the chance to get on with a growing company. Thus Mackey is able to pick from the best. All of his captains have had experience in the Air Force and on other airlines.

The company has hostesses who are married. "We get the pick of the girls—stewardesses who get married and leave other airlines. The married ones are steadier and stay longer," Joe Mackey says.

The Mackey Airlines terminal headquarters is modest, but attractive and has a do-it-yourself air. The waiting room contains settees and sofas upholstered in flowered linen by the stockholder-employees. Mr. Mackey doesn't buy anything he can't afford and the offices still have their original furniture—inexpensive

(Continued on page 77)

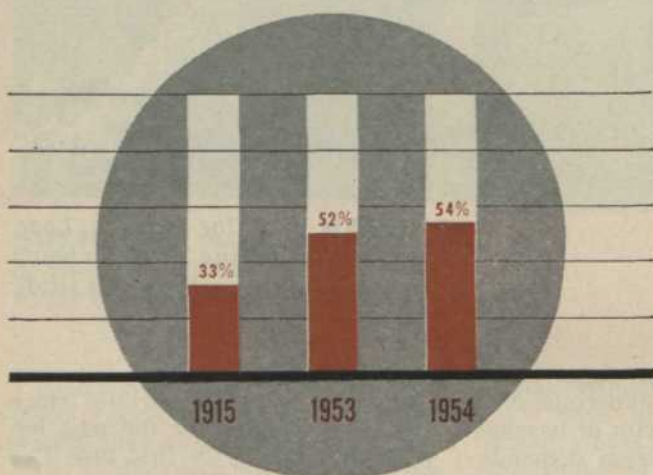
\$34,000,000,000 farm market is **GROWING**

Rural buying power will continue to increase faster than the buying power of those not on farms.
Here are three reasons why

THE AMERICAN farmer is a better customer today than he has ever been.

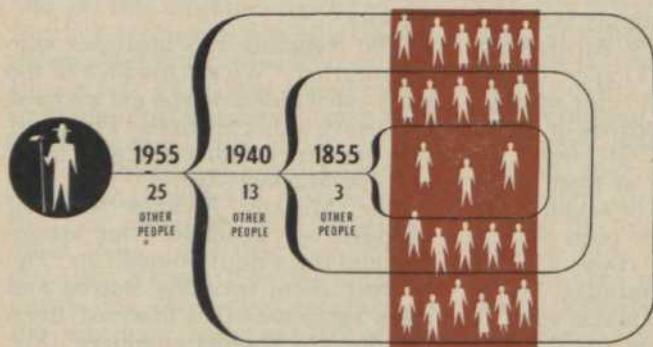
Although total gross income from farm operation fell from \$35,430,000,000 in 1953 to \$34,000,000,000 in 1954, the number of people engaged in agriculture fell even more. As a result, farm buying power is increasing faster than buying power of those not on farms.

Forty years ago the per capita income of farm residents was 33 per cent of that for nonfarm persons. It rose to 52 per cent in 1953 and 54 per cent last year.

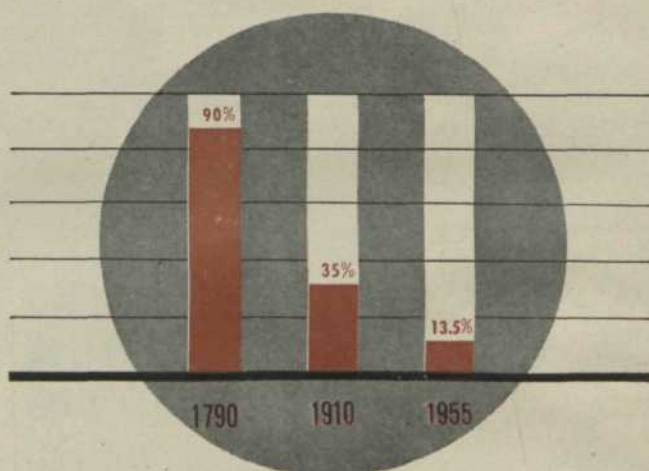


Reasons for the rise are primarily three:

1. Rising productivity: Each farm worker today produces enough food and fiber for himself and 25 other persons. Fifteen years ago he produced enough for 13 other persons, and, 100 years ago, enough for only three others.



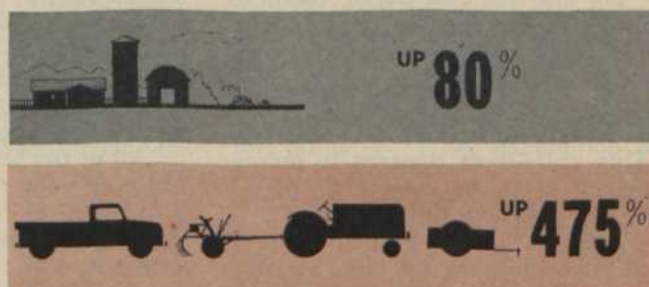
2. Fewer but better farmers: The first census, taken in 1790, showed more than 90 per cent of the population living on farms. The percentage dropped to 35 in 1910. It is 13.5 today and, of employed persons living



on the nation's 5,200,000 farms, 62 per cent of the females and 31 per cent of the males are engaged in non-agricultural pursuits. The number of farmers and farm workers has dropped from 9,540,000 in 1940 to 6,500,000 today. In the same period agricultural production increased 30 per cent.

3. Greater national income: Although retail food prices have increased 130 per cent since 1940, they have risen much less than earnings of food consumers. An hour's earnings of a 1940 factory worker would buy eight loaves of bread. Today they buy 11. They would buy five quarts of milk then, eight today; 28 pounds of potatoes then, 34 today; two dozen eggs then, three dozen today. Greater national income has also increased food consumption. Annual per capita consumption of beef since 1940 has increased from 54 pounds to 78 pounds, veal from seven pounds to ten, chicken from 14 pounds to 24, turkey from three pounds to four and a half pounds. Total meat consumption rose from 157 pounds to 182. Corresponding increases occurred in consumption of eggs, fruits and vegetables.

Farming today is being conducted more and more on



a businesslike basis, as it must be. The farmer's investment today in farm land and buildings has increased 80 per cent since 1930, while the investment in machinery and motor vehicles increased 475 per cent.

A typical 240-acre family-operated Illinois corn and hog farm is a \$90,000 investment. Land and buildings are worth \$70,000, machinery and equipment \$8,000, livestock \$4,000, and crops, feed and seed \$8,000. Cash receipts average about \$15,000 a year, and operating expenditures about \$7,000. Net income is about \$8,000 per year. In good years the operator and his family receive cash income exceeding \$2.25 per hour of farm work.

Investment in a typical 500-acre Washington wheat farm is \$125,000; a 6,000-acre South Dakota sheep ranch, \$90,000; a 4,000-acre Montana cattle ranch, \$75,000; a 125-acre Wisconsin dairy farm, \$35,000; a 120-acre Kentucky tobacco farm, \$25,000; and a 160-acre Mississippi cotton farm, \$15,000.

THE FARM MARKET

Capital expenditures:

	Billion Dollars
Buildings (new construction, improvements, repairs and maintenance)	\$ 2.4
Automobiles, trucks and tractors	1.5
Other machinery and equipment	1.7
Property taxes and farm mortgage interest	1.4
Rent to farm landlords	1.1

Current operating expenses:

Feed purchased	3.8
Livestock purchased	1.5
Seed purchased	0.6
Fertilizer and lime	1.2
Motor vehicle operation expenses	2.2
Hardware, containers, insurance, and other miscellaneous expenses	2.1
Hired labor	3.0

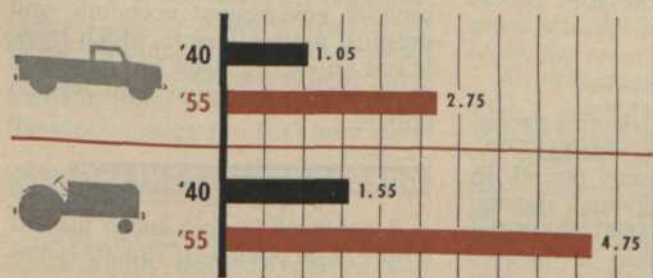
Food, clothing, medical care, and

other family expenditures.....11.5

\$34.0

Source: U. S. Department of Agriculture

Since 1940, farmers have increased the number of motor trucks they own from 1,047,000 to 2,750,000, tractors from 1,545,000 to 4,750,000, cornpickers from 110,000 to 660,000, and grain combines from 190,000 to 960,000. Farms with milking machines have risen



NATION'S BUSINESS • AUGUST 1955

FARM FAMILIES BUY

Seven per cent of the washing machines, refrigerators, television sets, and other major household appliances.

Ten per cent of the new cars and six per cent of the used ones. Seventy-seven per cent of farm families own automobiles, with ten per cent owning two or more.

Eight per cent own corporate stock.

from 175,000 to 740,000. This increasing mechanization has reduced the man-hours required for farm tasks. Since 1935, man-hours required to produce 100 bushels of corn have dropped from 125 to 30, 100 bushels of wheat from 70 to 25, 100 bushels of potatoes from 60 to 25, and a bale of cotton from 250 to 110. Corresponding reductions have occurred in producing silage corn, oats, barley, rice, sorghums, beans, peanuts, flaxseed and other crops.

Mechanization has profoundly changed methods of harvest. Wheat harvested by combine has, in 25 years, increased from 50 per cent to more than 95 per cent of wheat produced. Only one and a half man-hours are required to harvest an acre of wheat with a combine, while the bind, shock and thresh method required eight man-hours.



Mechanical pickers harvest more than three fourths of today's corn, requiring only two and a half man-hours per acre. Forty years ago 25 hours were needed.

The future holds prospects of further improvements in farm efficiency which, in turn, will increase the farmer's standard of living.

Increased use of fertilizer will, in effect, create additional farm land. A ton of fertilizer gives increased yield equivalent to that of two acres of untreated land. Liquid fertilizers give even greater increases. Anhydrous ammonia has stepped up corn yield from 26 to 107 bushels per acre, and raised spinach production 60 per cent. Soil fumigants promise to bring into profitable production much marginal land. Chemical disinfectants promise to save much of the \$5,000,000,000 worth of crops which are lost today because of competition from weeds, pests and diseases.

Farm products and animals are constantly being improved. Chemical growth regulators and plant hormones help produce seedless fruit without pollination, help delicate plants develop root systems quickly, prevent premature shedding of fruit, and quickly thin out excess blossoms from overbearing fruit trees.

Recent developments include chemicals to improve the taste, smell and looks of feeds, increasing the animal's daily food intake. But since the animals mature sooner, costs for feed are decreased. Dairy cattle better able to withstand summer heat have increased milk production in southern states.

As these improvements spread to more of the nation's farms, they will bring even greater productivity and consequently greater purchasing power.

—FRED LINDSEY

HOW'S BUSINESS? a look

An authoritative report by the staff of The Chamber of Commerce of the United States

AGRICULTURE

The U. S. Department of Agriculture is studying a modification of the wheat support program which would set up price-support differentials. The objective is to correct the top-heavy production of varieties of low-quality wheat grown merely to obtain tonnage for sale only to government through loan.

The State Experiment Stations in cooperation with the USDA are making a survey of the wheat grown for harvest this year to determine the proportion of each variety to the total quantity produced.

The new system being studied would set the support price for high quality wheat somewhere above 76 per cent. Support for lower quality wheat would be at lower levels. The average support level for all wheat combined would be not less than the 76 per cent level in the commercial areas.

To increase the effectiveness of the quota system Congress is considering proposals which would broaden the noncommercial wheat areas. In such areas wheat is supported at only three fourths of the support price in the commercial area but there is no penalty for marketing in excess of quota. Congress is also considering a proposal to permit producers to exceed their quotas where all the wheat is fed on the farms where it is produced.

CONSTRUCTION

Church construction proceeds at a phenomenal pace, indeed at the highest level in history. The outlook this year is for \$750,000,000 of new church construction, exceeding last year's total by 26 per cent.

Barring major war, severe depression, or major change in the value of the dollar, according to estimates of the F. W. Dodge Corporation,

some 70,000 churches and synagogues will be constructed or substantially altered in the United States in the next ten years at a cost of nearly \$6,000,000,000.

In addition, there will be built about 12,500 parish houses, Sunday school buildings, and related buildings (including parochial schools) costing about \$1,250,000,000.

CREDIT & FINANCE

The FHA has been carrying out nine types of insurance programs (under 11 funds) against losses on loans made for property improvement and project mortgages.

From inception to June 30, 1954, it wrote \$26,500,000,000 of mortgage insurance covering 3,500,000 mortgage loans. The agency also insured 17,300,000 home-improvement and modernization loans to about \$8,000,000,000.

Insurance losses amounted to \$86,600,000, or one quarter of one per cent. Losses on the home-improvement and modernization loans were about \$80,000,000, or one per cent.

All advances by the government to the insurance funds were repaid with accrued interest to the U. S. Treasury, and all operations are now self-supporting from earnings or capital contributions by other FHA insurance funds.

Review of these operations is being considered with the thought they might be established as private mutual insurance groups, or that private insurance companies might take them over.

DISTRIBUTION

Consumer demand remains strong. First quarter spending was \$11,500,000,000 over the same period in 1954. Disposable personal income increased only \$8,500,000,000 in the same period. Purchase of durable

goods, particularly automobiles, was the most dynamic element in total spending.

Though take-home pay is larger, consumers are still making free use of short- and intermediate-term credit. Consumer instalment credit increased \$636,000,000 in May, most of it automobile paper. Though economists express concern over the rise in credit, some retailers are encouraging credit to increase sales volume. Hardware dealers, for example, are making greater use of consumer credit plans. In the home furnishings market, time-payment plans are getting increased emphasis.

Total retail sales in April reached \$15,200,000,000, or one per cent above March. Department store retailers, optimistic about summer volume, expect increases of from three to seven per cent. Increased spending, however, does not mean a seller's market. Buying must still be encouraged by intensified merchandising and promotion.

FOREIGN TRADE

"Soviet Bloc Economic Activities in the Free World," the sixth semi-annual report to Congress of operations under the Mutual Defense Assistance Control Act of 1951, has just been issued.

The report indicates that in 1954 the Soviet bloc increased its imports faster than its exports, but that the imports began to taper off in the latter part of the year. Some of the expansion in East-West trade came out of the sizable increases in Soviet bloc purchases of food. Purchases of all sorts from the free world demonstrated the continuing primary interest of the communist countries in procuring capital goods to keep their forced industrialization rolling along.

This last year clearly demonstrates that commodity exchanges entered into by the Soviet-bloc countries are invariably connected to broader government economic and political motivations in which trade is not an end in itself but a vehicle of an often aggressive total foreign policy.

GOVERNMENT SPENDING

A balanced budget and a tax cut both will be possible if Congress and

ahead

the Administration adopt the recommendations the Hoover Commission has been making since late last winter.

As its wind-up, the Commission issued a summing-up report pointing to savings in various areas totaling more than \$8,000,000,000. Allowing for overlapping in some areas, the net savings may still total as much as \$5,000,000,000.

The big problem is to get favorable action. So far Congress has been moving slowly. Though administrative action has been a little faster, little more than a beginning has been made.

Now, however, the Budget Bureau is taking hold of the job, and congressional committees are scheduling hearings for next fall. Taxpayers who want a cut in their tax bills should back up the Commission.

LABOR

One conclusion which can be readily drawn from the International Labor Conference in Geneva is that our American employer representatives are not meekly accepting communist employers into the supposedly tripartite ILO.

W. L. McGrath of Cincinnati, the U. S. employer delegate, again labeled these delegates as impostors "acting under the orders of the Communist Party, an international political party dedicated to the overthrow of the system under which the free employers operate."

Mr. McGrath refused to sit on any Conference committees with the communist employers.

At the same time, he participated fully in the committees on which there were no communist employers, and in the plenary session of the Conference. In addition, he maintained close relations with the free employer group of ILO on all Conference matters.

The bubbling ILO pot promises to come to a boil when the organization ultimately decides what to do about employer and worker delegates who are controlled and dominated by their governments. That is the real question the ILO now faces.

NATURAL RESOURCES

Most recent study of the nation's power supply shows capacities dou-



MONKMEYER

bled and expenditures of more than \$18,500,000,000 since World War II. Needs may reach three times the present supply by 1975 and require an additional \$35,000,000,000, according to the Hoover Commission.

Indications are that new tax incentives will be offered for private expansion to meet the government goal of 150,000,000 kilowatt capacity by 1958. Even this, some say, will not boost regional capacities to the normal reserve figure of 15 per cent. Federal Power Commission estimates national reserve at 9.8 per cent by 1958, although the figure for 1954 was 21.5 per cent, highest since 1945.

The Hoover Commission confirms the Administration view that local interests should be encouraged to develop new electric power supplies to meet local needs.

The next session of Congress will undoubtedly see numerous bills for development of new blocks of electricity. Such legislation will have political overtones, as the election campaign gets into full swing. Most observers feel, however, that this will not seriously delay future developments of the private utility industry.

TAXATION

Tax legislation has always originated in the House Committee on Ways and Means. Periodic efforts by other committees have been defeated. Bitter feuds have developed among individual members of Congress, and the press has at times entered the several controversies.

All of this makes it more puzzling that a subcommittee of the Public Works Committee, apparently with the blessing of the speaker, should have included a series of new taxes on gasoline, diesel fuel and truck tires in its bill to authorize a new highway system. It's a good bet to

touch off a major jurisdictional conflict even though Democratic members of the Ways and Means Committee, with two exceptions, have shown an inclination to uphold the Speaker in a preliminary test vote taken within the committee in executive session.

If the bill (H.R. 7072) is eventually reported by the full Public Works Committee the battle will be transferred to the House floor. The ensuing debate could stop all other legislation.

TRANSPORTATION

Sounds of the impending battle over the Cabinet Committee Report on Transportation are audible although hearings on the bills aren't likely until next year.

The Cabinet Committee was headed by Secretary of Commerce Weeks and included the Secretaries of Defense, Agriculture, Treasury, Postmaster General, the Defense Mobilization director and the director of the Budget.

Generally supporting the report are the railroads which regard it as a logical step toward establishing equality of regulation. Leading the opposition is a united motor carrier industry, barge and intercoastal steamship lines.

Drawing the heaviest fire are those provisions which would limit the Interstate Commerce Commission's rate authority to fixing maximum and minimum rates and the rule directing the ICC to set rates without regard to the effect on competing carriers.

Unsettled is whether the coming hearings will treat the report as an omnibus measure or consider each recommendation separately. The latter approach seems to be favored by key staff people in Congress and appears to be the most likely to produce legislation.

NEXT YEAR'S LAWMAKING OUTLOOK

**Will the national campaign speed or delay
tax cuts, farm prices, a balanced budget? A look at
the record gives some pointers**

for
box score of
Administration's
VICTORIES

and
DEFEATS

turn next page



WIDE WORLD



UNITED PRESS

THE 1956 elections are still more than a year away, but President Eisenhower already can be sure that his party will go into the campaign with a large percentage of his legislative goals accomplished.

This conclusion emerges from a survey of the legislative record in the past three years—during two years of the Republican Eighty-third Congress and this year during the first half of the Democratic Eighty-fourth Congress. The conclusion is true even though at first glance the line-up of issues the President will have to work out with Congress next year seems formidable:

Tax reductions—how big and for whom?

Farm prices—how should they be supported?

Foreign trade—can domestic industry stand less protection?

The budget—can it be balanced?

In addition to these big issues at least a few others will be left over from this year, items the President requested and Congress did not get around to.

There's the health reinsurance bill, for example, designed to induce private insurance companies to broaden their health coverage by providing government underwriting of part of the potential losses.

There's possible expansion of coverage of the federal minimum wage law to retail and service establishments and into other fields. The President this year urged Congress to consider broader coverage but the legislators decided to move first on raising the minimum for workers already covered.

Democrats may push some Taft-Hartley labor law changes.

The President is almost certain to try again to get an increase in postal rates to help pay for this year's postal pay boost.

As congressional sessions go, however, this agenda is actually on the light side. More important, however, the legislative record of the Eisenhower Administration is already in such good shape as a result of action during the first two and a half years that the President doesn't need many more major laws to round out his program.

His record will look impressive even if Democratic opposition in Congress becomes much stiffer in 1956 than this year.

Already achieved are:

Tax cuts amounting to close to \$7,500,000,000 a year, plus a complete overhaul of the tax laws; peace in Korea and a general lessening of world tensions; major spending reductions and progress toward a balanced budget; extension of the reciprocal trade program, simplification of customs procedures and other steps to help bolster the trade of friendly nations; a record level of business activity and a halt in the inflationary spiral; broad extension of social security coverage and liberalization of benefits; new farm price-support program; broadened coverage under the federal unemployment insurance program; a beginning in private participation in the development of atomic energy; authorization of the St. Lawrence Seaway; a settlement with the states on the tidelands oil issue; a new partnership power policy; pay increases for members of the armed services, postal employees and other federal workers.

Most of these legislative items were put through during the first two years of the President's term, when his party controlled Congress. But many came after Democrats won a congressional majority.

In fact, historians may decide that the President made some kind of record for successful dealing with a Congress controlled by the opposi-

tion party. Certainly, he has been able to avoid the political war he himself warned of before last November's elections. There has been nothing in the past year to compare with the bitter and constant strife that marked 1919 and 1920, when President Wilson faced a Republican Congress; or 1931 and 1932, when President Hoover faced a Democratic House; or 1947 and 1948, when Harry S. Truman went to the mat with the Republican Eightieth Congress.

This analysis is true despite the brief flareup late in June between the President and Senate Majority Leader Lyndon Johnson. Senator Johnson, shortly before a heart attack sent him to the hospital, issued to reporters a list of the Senate's accomplishments up to that point. He suggested this list could hardly be squared with the President's 1954 warnings of a "cold war of partisan politics" and added that on the basis of what Congress was doing, "some of the speech writers on Madison Avenue had better run for their dictionaries and find a new definition for 'cold war.'"

At his press conference the following day, the President read off a long list of legislation he had requested and still had not got from Congress. He indicated that Senator Johnson should get busy and get some of these bills to the White House.

But most reporters felt that this was just some gentle political sparing and jabbing, not all-out political war.

They felt that Senator Johnson had taken an opportunity to make a dig at the President, and that the President had taken the opportunity to give Congress a slight prod. They all felt sure that, as Senator Johnson and House Speaker Sam Rayburn were quick to reply, many of the items on the President's list would be law by the time Congress adjourned. And events have proven them right.

Some Democrats say the legislative accomplishments of 1955 were possible because of—not in spite of—their occupancy of the congressional driver's seat. To support their claim, they cite passage this year of a three-year extension of the reciprocal trade agreements program and their support of the federal minimum wage. These were items on the Eisenhower list, but both have been traditionally Democratic programs and the Democrats were happy to put them through, though somewhat frustrated politically by the fact that the recommendations this time came from Mr. Eisenhower and the credit went mostly to him.

Some conservative Republicans



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LAWMAKING OUTLOOK

continued

agree with this Democratic point of view, and, in fact, complain that the President has given his support to too many New Deal programs.

But the President's supporters argue that his success in dealing with Congress arises from the fact that he is a true middle-of-the-roader. It's difficult, they assert, for even Democrats to be against all the legislation that he espouses.

Whatever the reason, the first session of the Eighty-fourth Congress produced a large amount of legislation and an astonishing dearth of rough-and-tumble politics. There were no rip-roaring, exposé-style investigations. The McCarthy issue had died to less than a whisper. A few controversial hearings and floor fights flared briefly and then van-

ished. The only hearing that ever seemed likely to provide headlines in the old tradition was Senator Fulbright's investigation of the stock market—and that was abandoned early in the session. Highly touted antitrust hearings never got off the ground. The major legislative battle—on tax policy—was out of the way by the end of March.

In part, this lull in the political war was the result of a deliberate policy on the part of two skillful Democrats from Texas—House Speaker Sam Rayburn and Senate Majority Leader Lyndon Johnson. Both discouraged investigations which were clearly fishing expeditions.

On legislative matters, Mr. Rayburn did not hesitate to clash with Republicans on the House floor, but he was reluctant to give these encounters a long advance build-up in the press or to hash them over publicly once the fight was

done. In the Senate, Mr. Johnson's technique was to avoid open clashes unless he was sure of a united Democratic front. He showed a remarkable ability for working things out behind the scenes by cajolery, persuasion and compromise.

Another reason for the comparatively calm relationship between the White House and Congress was President Eisenhower's willingness to meet the lawmakers half way on some subjects. Of course, anyone who travels down the middle of the road is liable to get spattered from both sides, and an example of this occurred on legislation to extend the reciprocal trade program.

President Eisenhower urged a three-year extension, with authority to cut tariffs five per cent in each of those years. His original plan included no concessions to the mounting protectionist sentiment in Congress.

The House, by the narrowest of

LEGISLATIVE BOX SCORE

of major requests made by President Eisenhower to Congress in 1955 (*as of late July*)

APPROVED as requested **APPROVED** with changes **REJECTED** or partial action

Corporate, excise tax rate extension	•		
Lower taxes on business earnings abroad			•
Debt limit extension	•		
Reciprocal trade program extension		•	
Customs simplification			•
Participation, Organization for Trade Cooperation			•
Authority to defend Formosa	•		
Major international treaties and pacts	•		
Foreign aid extension		•	
Military draft and reserve program		•	
Military construction program		•	
Minimum wage increase		•	
Taft-Hartley revision			•
Highway building program			•
Federal aid for school construction			•
Housing program			•
Antitrust law changes	•		
Small Business Administration extension		•	
Renegotiation Act extension	•		
New health reinsurance scheme			•
Higher pay for federal personnel		•	
Higher postal rates			•
Lower voting age			•
Statehood for Hawaii			•
Liberalized admission for refugees			•

margins, gave him substantially what he asked for. But the Senate threatened to add dozens of protectionist amendments and to deny much of the new tariff-cutting authority he sought. Faced by this prospect, and by the likelihood that the issue would badly split Senate Republicans, the White House assented when Senator Johnson and Finance Committee Chairman Harry Byrd of Virginia suggested concessions that would save the provisions extending the trade program and permitting new tariff reductions. These concessions were for the most part designed to make it easier for domestic industries to get tariff relief when they were hurt by competition from foreign imports.

With these amendments, the bill sailed through the Senate. The President then let it be known that the Senate bill was acceptable to him just about as it was. In view of his stand, the House-Senate conference appointed to work out a final compromise measure accepted the Senate bill with only a few changes.

Back in the House, the conference bill was finally approved but not until it had been assailed by free-trade Democrats, who attacked the President for "surrendering to the protectionists" and "betraying the trade program," and by protectionists in both parties, who called it another sellout of American labor and industry to foreign competition.

Another brisk encounter started in January when the President asked Congress to extend the 52 per cent corporate tax rate and the excise rates on liquor, tobacco, gas and autos, all slated to drop April 1, 1955. At the same time, he hinted strongly that perhaps he would recommend income tax cuts next year.

The Democrats had planned to hold off until 1956 before driving for individual tax cuts, figuring the President would still not be ready to grant such relief and that they would then have a potent campaign issue. But hints of an administration tax reduction plan in 1956 made the Democrats fear he would beat them to the punch. So they rushed through the House Ways and Means Committee a \$20 per person tax cut, effective Jan. 1, 1956.

The President blazed. He and his aides attacked the Democrats for "fiscal irresponsibility" and "playing politics with the budget." The Democrats, on their part, took the White House reaction as a personal attack on Speaker Rayburn. United, they pushed the tax cut bill through the House. In the upper house, Senator George of Georgia, the

(Continued on page 92)

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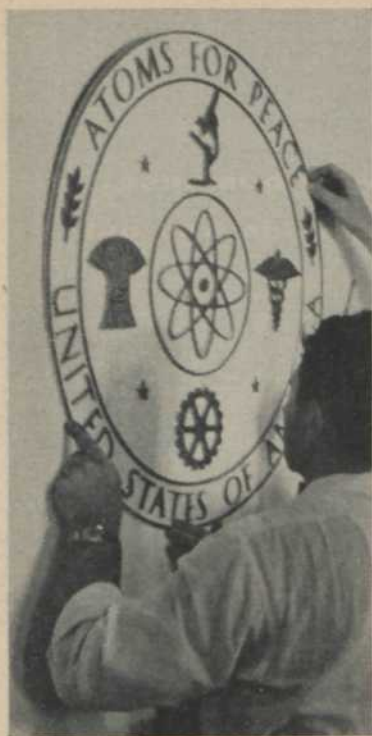
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NATIONS MEETING TO TAME THE ATOM

Future world leadership at stake as 66 nations compare progress of private enterprise and communism at conference on nuclear energy

Model atomic plant exhibit is inspected by AEC agents before shipment. Russian language signs explain models



THE WORLD'S first united effort to tame the atom for peace and profit will take place this month in Geneva, Switzerland.

The occasion is the United Nations Conference on Peaceful Uses of Atomic Energy. The dates: Aug. 8 to 20.

Great hope has been expressed by science and government that the conference will really open the door for the pooling of knowledge and resources to create vast amounts of power, pull atomic therapy ahead, and develop promising industrial techniques.

U. N. Secretary-General Dag Hammarskjöld goes so far as to say, "The conference may lead the way to removing the threat of the atomic bomb."

Evidence of the sincere desire of nations to cooperate is shown in an amazing amount of information, much of it classified as secret before, that will be spread before 66 participating nations.

The data is coming from both sides of the Iron Curtain.

The Secretary-General of the conference, Dr. Walter G. Whitman, on leave from Massachusetts Institute of Technology, says, "The papers and exhibits submitted show a real desire to get out information on peaceful uses of the atom. An industrial nation, such as Germany, could come to the conference and get enough information to make its own reactor to produce electric power."

The U. S. Atomic Energy Commission, he says, has removed the secret label from a great deal of information for the conference. His deputy, Dr. Viktor Vavilov of the USSR, reported that Russia will bring to Geneva much data once regarded as top secret, including a film on a 5,000-kw power reactor in operation more than a year, parts of the reactor, and information on reactor fuel developed in the USSR.

Altogether, 38 nations will bring facts and techniques on such a variety of subjects as uranium prospecting in Canada, behavior of heavy water in piles, and operation of different types of power reactors.

There is still a blackout, however, on information that might be used for creating weapons. Russia, for example, has boasted that it has used nuclear force to blast through a mountain, but neither the Soviets nor any other country plans to talk about this phase of atomic energy.

A secondary, but very practical reason why the three great world atomic powers, the United States, Russia and Britain, are pouring such information into the conference is that this will be a decisive heat in

the atomic race for world leadership. At stake are the almost limitless world markets for atomic machines, metals and fuels and the allegiance of nations trying to look into the future.

Delegates will attend the conference to judge how American free enterprise stacks up in atomic comparison with its chief rivals, Great Britain and the Soviet Union.

The United States entry will include exhibits showing how atoms can be used for energy, healing, research and food preservation. Displays will show visitors that these are the products of the know-how and teamwork of U. S. science, industry and government. Some 100 industrial and commercial firms and 50 educational and research organizations will take part in exhibits. In a chamber in the Palais des Nations—the former home of the League of Nations—this country will have models of a nuclear power plant as well as small research and medical reactors, exhibits of isotopes, radiation protection, prospecting equipment, production of reactor fuels, chemical processing, and industrial by-products of atomic energy.

In a special building, a 100-kw research reactor will operate immersed in a tank of water. Sight-seers, shielded against radiation by the water, will be able to watch the start, operation and stop of chain reaction. Qualified visitors will be invited to run the reactor themselves.

In addition, through motion pictures and technical papers, the American delegation will explain the program hammered out between the White House, Atomic Energy Commission and the Congressional Joint Atomic Committee.

Our plan provides for the U. S. to put up half the cost of small research and medical reactors for cooperating nations, and supply them with limited fuel. The cost of these reactors is about \$300,000 to \$500,000. Congress voted \$5,000,000 for this program. Some 20 nations have signed agreements. The fuel, uranium 235, will come from the 440 pounds (200 kilograms) set aside by the President. A research reactor will use about six kilograms.

We will export knowledge by training foreign students, lending scientists to other nations, and exchanging data. Today, students from 20 nations, as far apart as Sweden and Pakistan, are training at the new School of Nuclear Science and Engineering at the Commission's Argonne Laboratory. Another 24 nations are represented in a course on radioisotopes at Oak

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Swimming pool type reactor is loaded at Knoxville, Tenn., for shipment to Geneva. Built at Oak Ridge National Laboratory, operated by Union Carbide and Carbon Corporation, it will be shown in specially constructed building next to the Palais des Nations

Ridge. The Commission has put together extensive atomic libraries for Japan, Italy and France, and has more customers on the waiting list.

Perhaps the brightest prospect for the world is the President's offer of June 11 to train foreign scientists "in the technological processes of construction and operation" of power reactors.

Two paths of action are laid out in the plan. One is by separate agreements with friendly nations. We now have agreements with more than 25 nations. These agreements are laid before the Joint Atomic Committee for 30 days. In that time, the Committee can search the treaties and make suggestions.

The second avenue is through the world atomic agency proposed by the President. U. S. participation would have to be approved by Congress.

Britain also has good progress to show. Need forced the English to start on 12 nuclear power stations which, by 1965, will generate as much energy as 6,000,000 tons of coal a year. (Our capacity by that date will be about two and a half times that.) Britain's demand for electricity will go up three and a half times in the next two decades and coal cannot handle the load. But domestic requirements are not all that drive Britain ahead. The White Paper on Atomic Energy released early this year said:

"We must look forward to the time when a valuable export trade can be

built up. The experience gained during the next ten years should lay the foundation for a rapid expansion both at home and abroad. As time goes on the design of the stations will be improved, the cost of electricity will be known more exactly and, above all, their construction and operation will have become standard engineering practice. We shall then be in a position to fulfill our traditional role of exporter of skill, to the benefit of ourselves and of the rest of the world."

The Geneva conference is part of the atoms for peace plan which originated in American industry.

Late in December, 1954, John Jay Hopkins, board chairman of General Dynamics, proposed that the team of U. S. government and industry aggressively export the atoms for peace idea. He later worked out plans for making Japan the hub of an Asian atomic power network.

Chairman Lewis Strauss of the Atomic Energy Commission picked up the idea of atoms for peace as an ideal way to combat communist propaganda that the United States was a land of mad warmongers exploiting atoms for world destruction.

The President endorsed Mr. Strauss' thinking and, speaking to the U.N. General Assembly Dec. 8, 1953, asked the nations to turn from atomic war and pool their wisdom and resources for peaceful use of atoms.

To give his program status, Mr.

Eisenhower named Morehead Patterson, president and board chairman of American Machine & Foundry Co., as ambassador to the proposed U.N. Atom Agency.

The present program grew out of this thinking two years ago. The President has revealed new facets in speeches. And, much less known but equally important, the Joint Committee has given atoms for peace a sound ring. An incident reveals the Committee's influence. Late this spring, the Administration asked for \$35,000,000 to build an atom-powered ship which would sail the seas as a goodwill messenger. The Committee set its experts to work, then told the AEC that the real cost of such a vessel would be closer to \$55,000,000; that \$35,000,000 might better be spent on research and power than for a showboat.

For \$35,000,000, the Committee pointed out, the government could build a modern 60,000-kw power reactor, or five of the most modern medical reactors to fight cancer, or train 4,000 foreign students in nuclear science at the international training center at the Argonne Laboratory, or 16 package power plants, each generating 2,500 kw of electricity, for 16 points in the free world. This logic, in the words of one AEC lobbyist, "sank the ship."

The atom showboat would not as likely start a stampede for U. S. know-how as a display set up at one end of the Geneva exhibit. This contains five trim models of atomic power plants.

Power is the gold of tomorrow. Industrial nations are running short of it and have dwindling reserves of fuel.

Undeveloped countries are tied to poverty and a primitive life for lack of power.

World power production is 1,244,497,000,000 kilowatt hours, with the U. S. using 41 per cent. (Russia is a poor second with 10.7 per cent.) The normal need, without extraordinary spurts forward that war or rapid industrialization could bring, is seven per cent more power a year.

In Western Europe, ambitious postwar plans for industrial expansion are slowed, even halted in many cases, by lack of cheap power. Russia uses Polish and Czech coal as a bait to draw western nations away from close economic ties with the U. S. To counter this, we have been shipping American coal at a great loss to Western Europe and Japan. In Spain, power is rationed and in the dry season can be used only two days a week. Russia's awkward, painful change from a rural to a semi-industrial state was won at a cruel cost to

the civil economy because of power problems.

Asia is rooted to a distant past by lack of power. Japan, with industrial know-how and drive, has been forced to loot, steal and borrow to get the coal to run her factories. India, proud, ambitious, and stirring with promise, must burn cow dung for power. Argentina burns wheat as a major source of energy. A U. S. congressional delegation reported after a visit to Australia: "South Australia needs atomic power, and is looking to us for extensive technical guidance. Atomic energy can make great contributions to the Australian economy. This is a nation of 9,000,000 living in a land as large as the U. S. They are ambitious and have a high standard of living but are beset with economic problems."

The delegates also said New Zealand must rely on atomic energy by 1975.

A kind of priority list on the nations which both need and could benefit the most from atomic power puts at the top India, Australia, Japan and the Philippines.

This world of power shortages looks hopefully at the atom. It can take energy to the most remote areas, irrigate deserts and even warm vast areas. The power plant can be located on an iceberg or mountain. The American Locomotive Co. is building a package reactor to produce 2,500 kw for the Army at a faraway base. One pound of uranium, about a cubic inch, has as much energy as 1,500 tons of coal. The cost and effort of mining and transporting conventional fuels over long distances is eliminated.

The U. S. has experimented with five types of power reactors, and models of them will be exhibited at Geneva. They are: 1. The pressurized water reactor, the old stand-by of the baby industry. 2. The water boiler. Water is boiled in the reactor to create steam, and eliminates one step in the pressurized water model. 3. The sodium graphite reactor developed by North American Aviation. It has the advantage of high temperatures with the explosive high pressures. 4. The fast breeder which eventually creates its own fuel, and thus needs only a small amount of U-235 as a starter. 5. The homogeneous reactor which uses fuel in a water solution.

There will be no price tags on these models, but a conservative estimate is that a 100,000 kw nuclear power plant will cost from \$100,000,000 to \$200,000,000. However, from Shippingport, Pa., where Westinghouse is building a 60,000 kw A-power plant for Duquesne Light Co.,

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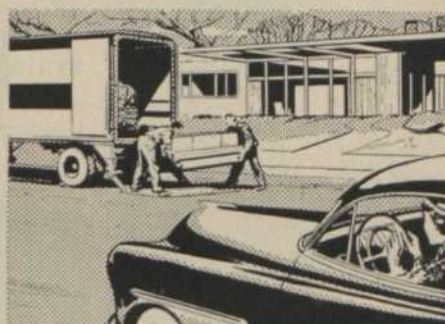
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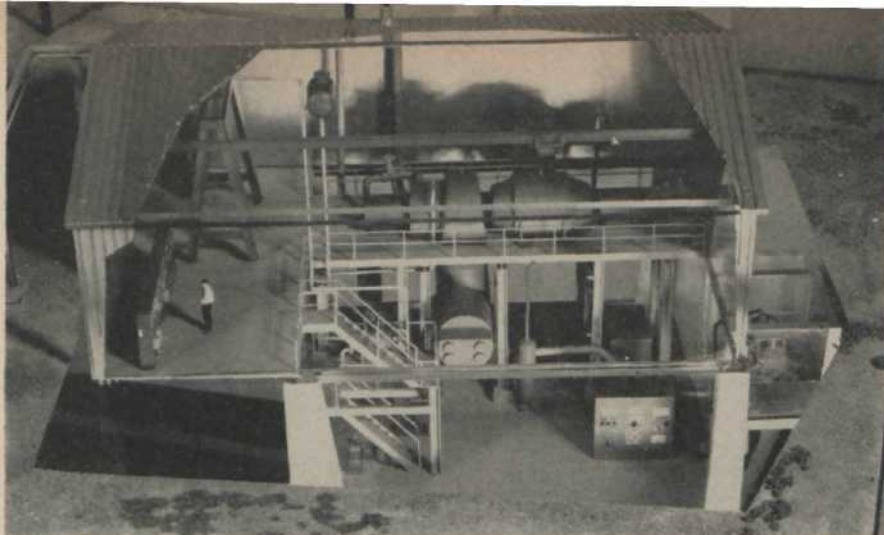
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U. S. is sending a variety of reactors. This boiling water type generates electricity, is result of experiments started two years ago by Argonne National Laboratory, University of Chicago. Exhibits will show other industrial uses for atoms



Sharing knowledge is practice at School of Nuclear Science and Engineering at Argonne. Students are preparing to measure radioactivity of wire from nuclear research reactor. Foreign students represent countries of Indonesia, Argentina, Japan

come reports that lessons learned in putting together this experimental plant might make duplication possible for \$30,000,000, and produce power at a cost of one cent per kilowatt hour.

While one cent power is too dear to compete in the U. S., it is a rival of power by conventional fuels in more than half the world. We, in America, produce power from coal, water, natural gas, and oil at an average of seven mills. But the European power grid which covers France, Belgium and Holland, has a rate between nine mills and a cent. In Japan, the cost is 20 mills. For the undeveloped nations, the cost of electricity is prohibitive for industry.

The United States has real incentives for investing in this foreign A-power market. Dr. Laurence Hafstad, atomic counselor for the Chase

National Bank, recently remarked that the knowledge gained from actual experience with power reactors abroad will advance our technology, and win us friends and clients. The atomic power research is today about like radio in its first crystal set days. Any day someone may come up with a discovery that will revolutionize atomic science, and bring the cost down to four or five mills. The Dutch, for example, think they are developing a fuel that is superior to anything we have. We cannot afford to be sitting in our walled-in yard when that day comes.

As for clients, the world is looking to the United States as the chief supplier of enriched fuels for reactors, the modern miracle metals like zirconium for reactors, heavy water, many chemicals, reactor design and techniques, and package

reactors. This could boom into a multibillion dollar business.

Looking even farther into the future, atomic power may solve the problems arising from a soaring population expansion and a growing water shortage. The enormous quantities of heat in atom-splitting can remove the salt from sea water. This process and irrigation canals could transform the deserts of the U. S. Southwest, north Africa, Australia, and the USSR, and remove the curse of hunger.

This explains why President Eisenhower's brief mention of our desire to help the world master atomic power was a major blow in the cold war.

But dangers do lurk in overexploiting atoms for peace. A veteran foreign diplomat expressed a danger in an interview with NATION'S BUSINESS. He said, "You Americans are such great salesmen you sometimes sell a product before it is out of the factory. Some of us wonder if this is not true with atoms for peace."

Unfortunately, there is some truth in what he says. There is no well-thought-out, detailed plan for atoms for peace. No funds, except the \$5,000,000 that Congress volunteered, are on the table to pay for research reactors, scholarships and training, fuel and the hundred and one other items involved in our promises of help. And, in the words of a congressional committee member, "We don't have enough reserves of fuel, heavy water, graphite, zirconium and beryllium, and high caliber scientists to pass out like hot dogs at a picnic."

Equally as important, the AEC does not have unlimited authority to exchange information freely with foreign nations. The 1954 atomic act is strict about releasing unclassified data.

The big security rub is in power reactors, as Ambassador Patterson points out. He says, "The atomic reactor that produces the power produces plutonium, too. Significant quantities of this plutonium by-product of the power reactor could be used for weapons. Also, substantial quantities of the uranium fuel for power reactors can be converted for use in weapons."

These problems do not bother a large bloc of the nations which rushed to sign atomic agreements with us, because—like Colombia, Turkey and the Philippines—they are starting from scratch. But other nations with a good start, such as the Netherlands, want to know what strings we will attach. They are asking: In return for assistance in nuclear power plant operation, will the

U. S. demand control of the fuel by the AEC or a world agency? Will the cooperating nation be sending more information to Washington than it receives? Will the U. S. insist that the cooperating nation follow an American mode of research and operation? How much, aside from words, is the U. S. willing to put out, and when?

In Japan, for example, scientists generally criticized the government for rushing in to accept the U. S. offer of free fuel. A spokesman, Dr. Sakae Azuma, vice chairman of the Japan Council of Science, said, "A hasty decision will force our country to depend solely upon the United States, not only in politics and economics, but in science, too."

From the broad outlook, all these problems are minor. An excellent perspective of atoms for peace comes from Ambassador Patterson:

"We will bring only disappointment and disillusion if people are persuaded that this is an easy and quick assignment. Great human and material effort must still be exerted before we can tap the atom's full potential. . . . Twenty years from now perhaps 25 per cent of the world's new electric power capacity may utilize nuclear fuel."

The ambassador points out that atomic science may be a new cohesive force in the world because nations cannot go it alone. The Netherlands and Norway are moving ahead due to steady cooperation. France and Israel are working together to produce heavy water and extract uranium ores. Twelve European countries are pooling research knowledge through the European Organization for Nuclear Research. Teamwork between the U. S., Britain and Canada produced the bomb.

Ambassador Patterson emphasizes that the Administration is encouraging "as basic policy . . . the construction of research reactors by private firms for sale abroad. What you [industry] have today is a green light to go forward. Your international problems are assured a sympathetic hearing."

The underlying philosophy of atoms for peace, reflecting, as it does, a private enterprise system, is put into words by Mr. Patterson, "Characteristic of the American way of doing things, the benefits of this program will be realized by countries through their own efforts. They will have their own technicians who can develop the programs best suited to meet the needs of the country. This, and not a giveaway plan, is the truly American way of spreading the benefits of peaceful use of the atom."

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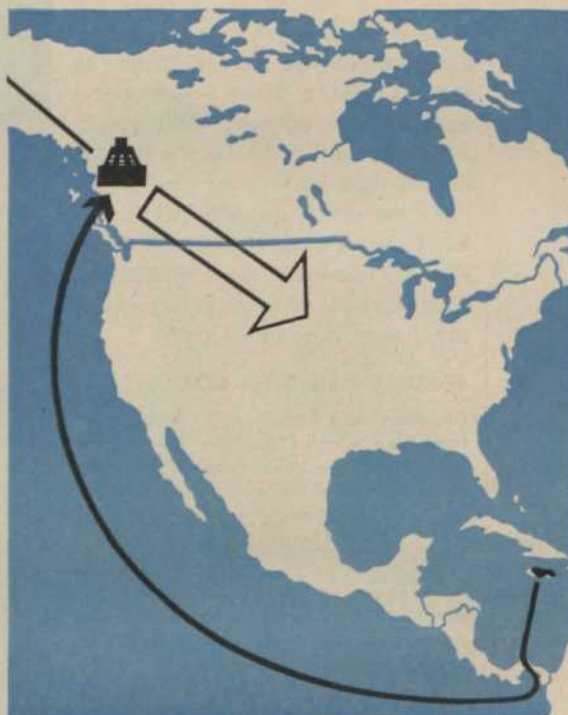
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MORE ALUMINUM IS ON WAY TO U. S.

Metal-hungry fabricators see answer to their shortage in vast new expansion program that is now underway in Canada's British Columbia

Bauxite, most plentiful raw material from which aluminum can be made, is mined and refined in Alcan plants at Jamaica, British West Indies. The alumina, a fine white powder, then makes the long voyage via company ships through the Panama Canal to the smelter-side docks at Kitimat, British Columbia. The ingots help fill U. S. demand



The 50-mile Kemano-Kitimat power line winds up through mile-high Kildala Pass. Tower at the right is of aluminum construction

EARLY NEXT YEAR, deep inside a mountain at Kemano, British Columbia, a huge generator will roar into action, powered by water falling from a height 16 times that of Niagara Falls, and the first phase of expansion for what is destined to become the world's largest aluminum refining operation will be under way.

The Aluminum Company of Canada, whose parent concern, Aluminium, Ltd., is 75 per cent owned by United States investors, already has completed installation of three generators to supply power to smelters at Kitimat, 50 miles to the north.

The expansion program is welcome news to 100 or more independent aluminum fabricators in the U. S., for whom Alcan has reserved at least 110,000 tons annually for the next seven years. It's welcome news, too, to the integrated producer-fabricators—Alcoa, Kaiser and Reynolds—who will share to a large extent in the increased tonnage.

Canada sold 192,560 tons of aluminum ingots to the U. S. last year and expects to top that figure this year by 25,000 tons. In 1956, Alcan says, at least 290,000 tons will be sold in the U. S. The United Kingdom, however, remains the company's biggest customer with about 300,000 tons allocated annually for the next 15 years.

Kemano's fourth generator (12 more are planned) will increase power production from its present 450,000 horsepower to 600,000 horsepower, a gain of 33 per cent in 1956.

Aluminum ingot production at Kitimat, in turn, will be increased from a current 91,500 tons to 151,000, a gain of 65 per cent.

Cost of the new generator and an additional potline at Kitimat is estimated at \$45,000,000.

By a sort of intra-hemispheric feedback system, the additional power and ingot production will make necessary a substantial increase in production of alumina at the company's plant in the British West Indies island of Jamaica. There, tonnage will be stepped up from 230,000 to 300,000—a 30 per cent gain—at a cost of about \$11,000,000. Alumina, refined from bauxite ore with lime and soda ash, is the oxide from which the pure aluminum metal is drawn.

Taking the long look, Alcan not only is increasing its own production rapidly but also is proving a major factor in the growing industrialization of western Canada, according to R. E. Powell, company president.

The company's 1955-1959 expansion program, spurred on by an insatiable demand for aluminum by industries throughout the world, calls for ingot production of 331,500

tons by the latter date, a 262 per cent gain from current capacity. Costs, including another bank of four generators, are expected to run close to \$200,000,000. The Jamaica alumina operation will be increased to 500,000 tons—a 117 per cent gain by 1959—at a cost of about \$40,000,000. The generators will produce 1,120,000 horsepower, about double the power to be produced next year.

Costs to date in preparing the way for this huge expansion total \$287,000,000. This includes land acquisition, construction of the Kemano powerhouse, the building of Kenney Dam, whose reservoir supplies Kemano; the installation of potlines and related facilities, including a city, at Kitimat; the construction of the 50-mile transmission line and the building of roads, docks, bridges, barracks, offices, an aerial tramway and other facilities.

By 1959 the company will have spent some \$527,000,000 solely to provide for the production of aluminum ingots in British Columbia. When the ultimate 550,000-ton capacity of the smelters is reached, probably during the 1960's, the total outlay will come close to \$900,000,000, and the Kitimat-Kemano operation will be the largest of its kind in the world.

So far, except for a relatively small loan from the United Kingdom, to be repaid out of ingot production on a first-call basis, the entire project has been financed by private capital in the United States and Canada. The company has borrowed no money either from the U. S. or the Canadian government, nor does it receive other than normal tax allowances from the Provincial and Canadian governments. Its financing has been in the form of new securities, both debt and equity, with remaining capital requirements coming either from retained earnings or from capital cost allowances.

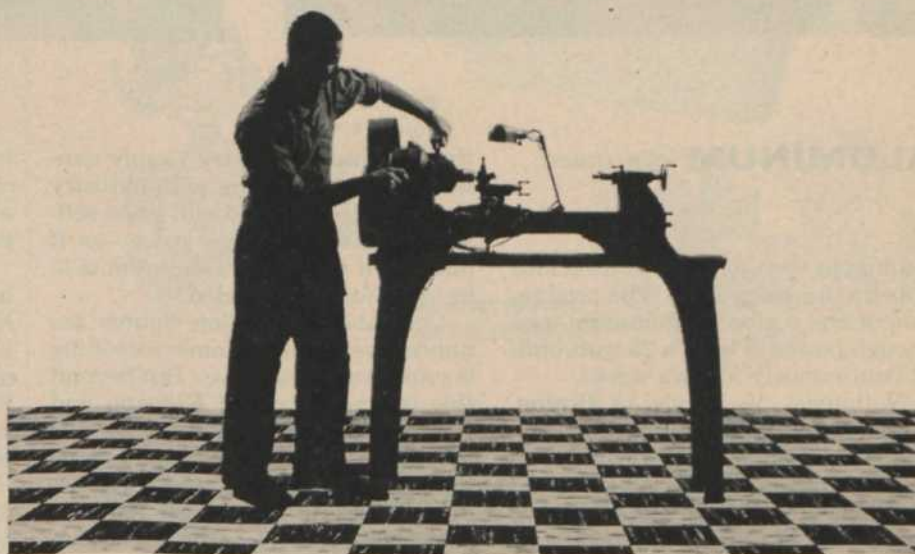
The interdependence of all phases of Alcan's project is an economic study in itself.

Without Kemano's power there would be no Kitimat; without Kenney Dam's 358 square mile reservoir containing (when it finally is full in 1957) 873,000,000 cubic feet of water, there would be no Kemano; without the snow and glaciers which create the lakes at the headwaters of the Fraser River, there would be no Kenney Dam; and if there were no demand for the shining 50-pound ingots that emerge from their cooling bath at the end of Kitimat's production line—there would be no Kitimat, Kemano or Kenney Dam.

Power in huge quantities is the key to aluminum production because an



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Below, half-mile aerial tramway carries workers up side of Mount DuBose to penstock entrance. At right, three huge generators are installed (background), while space is cleared inside mountain for next five



ALUMINUM *continued*

aluminum smelter has a voracious appetite for electricity. The production of one pound of aluminum uses enough power to keep a 25 watt bulb lit continuously for two weeks.

Nathanael V. Davis of Boston, president of Aluminium, Ltd., explains the economics of Alcan's power development this way:

"We feel the best and cheapest method of producing electricity in the big blocks we need is by water power—best and cheapest because the fuel cost is zero as long as the clouds bring snow and rain, and water continues to run downhill, which is one of the sure things left in this world.

"Bauxite and big blocks of water power are rarely found close together and since the power cannot be transmitted long distances it becomes an exercise in power and transportation logistics to get the bauxite or alumina moved to the power where the aluminum can be smelted and, in turn, moved economically to market.

"We have sought, therefore, to locate our smelters where hydroelectric power can be developed close to ocean and rail transportation and well located for markets. Even more important, because large blocks of power are seldom available at a low price in highly industrialized or populated areas, we have often gone to the outskirts of civilization—as at Kitimat and Kemano—to produce the metal.

"As a hungry user of electricity,

the aluminum industry simply cannot compete for power with industry or domestic users and still go on selling its metal at a low price—as it must do if the use of aluminum is to be continually expanded."

Cost and production figures are impressive. The economic reasoning is sound and persuasive. But beyond this the real story of Kemano and Kitimat can only be told by the thousands of men who helped move the figures and the theories from blueprints in Montreal, Alcan's home office, to the frontier wilderness of western British Columbia.

Alcan started from scratch. When the first party of engineers arrived in the spring of 1951 to plan construction, they literally hacked their way through a wilderness. In contrast, however, to their pioneer ancestors, these men had the advantage of modern civil engineering techniques as well as airborne surveying facilities. Twelve amphibious aircraft and seven helicopters were called into service and the entire project was laid out in a matter of weeks—a job which would have taken years for the pioneers of a century ago.

A total of 350 miles of roads was bulldozed through virgin forest to reach construction sites. As many as 6,500 men, housed in 26 campsites, worked around the clock to build the dam, tunnels, powerhouse, transmission line and smelters. More than 33,000 men were hired during the course of construction by Kitimat Constructors, Ltd., and the Morrison-Knudsen Company, principal contractors. Manpower was drawn

from all parts of Canada and from many foreign countries. Instructions and safety warnings, in fact, are printed in eight languages.

During more than three years of heavy construction work, the project lost 38 men, seven of whom were killed in a plane crash along the mile-high transmission line through Kildala Pass. Safety engineers consider this record almost without parallel for this type of construction.

Construction workers faced an enormous job. A dam had to be built to impound the waters of a chain of lakes which feed into the Nechako River to the east, 2,800 feet up in the mountains. A tunnel had to be driven ten miles through Mount DuBose (named for Alcan vice president McNeely DuBose) to drop the water half a mile into the Kemano powerhouse. The largest overhead transmission line in the world had to be strung 50 miles over mountain terrain between Kemano and Kitimat.

The smelters, townsite, port facilities and a railway spur had to be built at Kitimat, and a channel had to be dredged for deep water transportation down Douglas Channel to the Pacific Ocean.

All these projects were started out simultaneously in subzero weather. The port is ice-free year round, being warmed by the Japanese current.

It is difficult to measure the magnitude of Alcan's accomplishment. In less than three and one-half years from 1951, when the first road was started from tidewater on the Gardner Canal along the Kemano River to the powerhouse site, the first aluminum ingot came off the potline

at Kitimat. In the course of preparing for this historic moment, Alcan constructed the largest rock-fill dam in the world, with a drainage area of 5,550 square miles. Alcan's Paul Clark, chief historian of the Kitimat project, describes it this way:

"Kenney Dam rises 317 feet above the old bed of the Nechako River and measures 1,550 feet from one side of the canyon to the other. With a crest width of 40 feet and containing over 6,500,000 tons of rock and clay, its life will be measured in geological, not historical, time."

During the first winter on the project, 54 feet of snow fell and 80 foot snow slides were common. Ole Strandberg, construction chief at Kemano for Morrison-Knudsen, says:

"If you're thinking of building a plant in this country, remember the snow! That was only one of the problems we had, but it was a big one—just getting rid of the stuff. Some we used for refrigeration, but the rest had to be hauled away by truck so the men could work."

Power is carried from Kemano to Kitimat through aluminum transmission lines as thick as a man's wrist and supported by 250 steel and aluminum towers.

In January of this year, an avalanche tore down one of the towers, disrupting power services at Kitimat for about a week. Other than this, power failures have been few and brief, usually a matter of minutes. Two giant cables now used in avalanche areas are 4,000 feet long and have a breaking strength of 407,000 pounds each. It isn't likely, Alcan people say, that avalanches will do further damage.

Kemano is the name for an old tribe of nomadic Indians which once roamed the pleasant Kemano Valley. It means "men of the rocks." And the approximately 700 people who live at Kemano today know firsthand the significance of the name. More than 1,000,000 cubic yards of solid granite were blasted out of a mountain to make the tunnel to bring water from Kenney Dam to Kemano powerhouse. This is the first of two tunnels, the second to be constructed sometime in the course of the next decade. Miners bored from both ends and the middle simultaneously. They all met, dead center. The tunnel was driven westward from Tahtsa Lake, eastward from a portal 2,600 feet up Mount DuBose, and in both directions at once from a 1,600 foot entrance bored into a small valley about midpoint of the tunnel. Miners set two hard rock records in building the tunnel, a 282 foot advance in six days and a 24 hour record of 61 feet.

Two branches of the main tunnel

(Continued on page 84)



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RUSSIA FEARS

(Continued from page 34)



a municipal pool. Rules of hygiene are taught in city and countryside.

The resulting baby boom and increase in longevity intensify the pressure upon the food supply which, in wheat, decreased 4.5 per cent between 1952 and 1955 and about half that much in rice because of floods, blight, frost, locusts and peasant resistance to collectivization.

China has only .53 of an acre per person of food-producing land, a ratio that has to be maintained for even the present subsistence levels. For every new mouth to feed China will need roughly another half acre of fertile soil; with a 200,000,000 growth in population in 15 years, China will have to have about an added 100,000,000 acres, or their equivalent in increased production from existing sources.

The peasants who comprise four out of five of the Chinese people have virtually reached the limits in crop yields. Nor will production be raised by the decision of the Mao regime to discard any long-term program of scientific agriculture, with its crop rotation, seed selection, etc., and to plump for quick results from collectivization along Soviet lines. The producers' cooperatives are already repeating in Red China the failures that have marked similar Soviet experiments over the past 26 years.

In this situation China has only three alternatives to prevent a mass starvation much greater than anything in its long history of hunger.

The first is to raise crop yields by applying such chemical fertilizers as ammonium sulphate which China lacks in any significant quantity. To buy such fertilizers from abroad on a scale large enough to balance food supply with population growth China would have to spend about 80 cents out of each of its import dollars. This Peiping will not do since it is determined to develop heavy industry first.

The second choice is to cultivate more land inside China. Out of some 360,000,000 arable acres, about

330,000,000 are now being tilled. In China proper about 6,000,000 acres could be reclaimed from erosion and given over to wheat. Another 3,000,000 could be added to the rice and cotton belts in the Yellow and Huai river valley regions by means of irrigation, flood control, and similar projects now under way. In Manchuria are some 12,000,000 acres that potentially could be used for grain and grazing. Another 9,000,000 acres are occupied by ancestral and religious shrines which, in view of communist campaigns against ancestor worship and religion, could eventually be put to the plow. Conceivably, then, China over the next 15 years, say, could open up for cultivation some 30,000,000 acres. But this would still leave a land deficit of some 70,000,000 acres.

This deficit is made more urgent by the new burdens being placed on agriculture. It has to sustain the ever-enlarging numbers of industrial workers, and others in urban centers. Moreover, farm products account for 70 per cent of China's exports which Peiping insists on raising to speed its industrialization program.

The third choice is to acquire food producing areas outside of China. If it moves toward Burma, Indochina, Thailand, or toward India, all of them thickly populated, it can barely alleviate, not remedy, its land shortage. It is the virgin soils of the USSR's eastern domains that beckon most invitingly.

The Kremlin is aware of this. Even Soviet history books tell how, centuries ago, the Mongol hordes from North China swept across Russia to subjugate its people.

During the past two years, Nikita Khrushchev has been frantically pushing his Soviet pioneers program to establish new Russian settlements as a network of buffer states along the Sino-Soviet frontier.

The Chinese history books still recount how Russia, from 1552 forward, expanded at the rate of 60 miles a day for 308 years, moving mainly eastward, forcing China to cede thousands of miles of territories; how the Czar wrenched Vladivostok from the Manchu throne in 1860; how, during the Boxer Rebellion in 1900, Russian troops, under the pretext of "restoring order," occupied Manchuria, killing, looting, treating it as a conquered province.

Even when the aims of Moscow and Peiping have seemed to coincide, their alliance has shown liabilities only partially concealed by its assets.

In the Korean war, for example, the combination of Chinese manpower and Russian materiel earned

for Red China's military prowess a respect akin to awe among other Asians. Red China was able to train the nuclei of its armed forces of 5,000,000 men in the use of modern conventional weapons. The Soviet Union, through military specialists attached to the Red Army, was able to test its artillery, armor and planes under battle conditions. But Soviet assistance fell far short of Red China's bedrock requirements. The best equipped Chinese combat division had less than 35 per cent of the firepower of the average Soviet division.

Eight months before truce negotiations began, the USSR began to reduce the amount of armament it was releasing from its own arsenals. It was getting nervous about Red China's growing practice of hoarding such materiel to build up its reserve military strength instead of committing it to the front. In the effort to compensate for this slowdown in Soviet aid, Red China overstrained its economy.

Contrary to propaganda from Moscow and Peiping, Red China's "volunteers" did not enter the Korean war just to show solidarity with their communist comrades of North Korea. Nor did Red China go into Korea just to bail out its big brother, the Soviet Union, from the trouble it blundered into when it egged on North Korea to send troops and tanks swarming across the 38th parallel on June 25, 1950. Red China had a lot to do with this act of aggression. It regards Korea as its own dependent state, a legitimate sphere of influence—economic (as a rice bowl), strategic (it lies between Manchuria and Japan), cultural (the Chinese claim that civilization was brought to Korea by a Chinese sage and his followers in 251 B.C.).

It was in March, 1949, that Peiping began to transfer from the Chinese communist army native Korean soldiers and Chinese born in Korea into special units in Manchuria. These units were in turn assigned to the North Korean Army where they became the 5th, 6th and 12th divisions that spearheaded the original assault upon South Korea.

A fierce contest between Moscow and Peiping for ascendancy over the regime of Kim Il Sung, communist boss of North Korea, has been going on for two years. When in September, 1953, Kim obtained from Moscow \$250,000,000 for his three year plan of postwar reconstruction, Peiping was not to be outdone. Two months later it pledged \$320,000,000, chiefly in commodities. This is a spectacular outlay for a country as impoverished as Red China. By

contrast, the contribution of the Soviet Union, with a per capita income ten times that of Red China, seemed niggardly—exactly the way Peiping wanted it to look. Red China's gesture performed three other functions. It displayed to all Asians its generosity to a friend and ally. It warned the USSR that its economic aid to Peiping was miserly to the point of insult. And it solidified its hold over North Korea as a protectorate.

The Chinese have proved themselves more than a match for their Soviet mentors in guile and intrigue. They are steadily sapping Russian influence among all the communist movements of Asia.

Soviet secret agents fashioned the Java Federation of Labor (SOBSI) in Indonesia. But today its strikes are fomented by Red Chinese.

Similar is the shift in allegiance by Ho Chi Minh, now president of North Viet Nam. In 1920 he was schooled in Moscow in the communist techniques of subversion, sabotage, guerilla warfare. After seven years of bloodshed his rebel forces ousted the French with help from the USSR and Red China.

Today he gives only lip service to Moscow. He looks to Peiping for guidance.

It is in Peiping, not Moscow, that the former Thai leader, Pridi Panomyong, is being groomed for the day when the Chinese assert hegemony over Thailand. In the same category are Borneo, Nepal, Ceylon, Malaya. They can anticipate the same fate as that of Tibet, which Red China annexed in 1951.

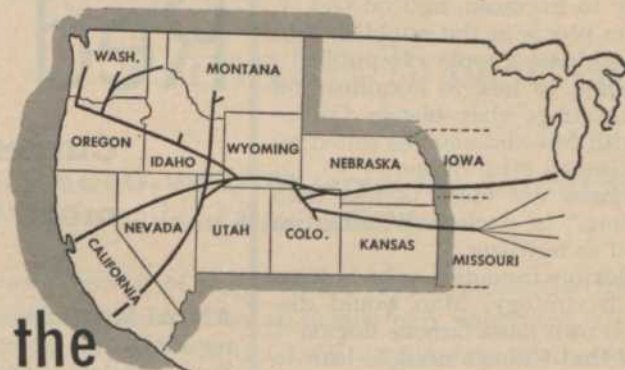
The expansionist drive of Red China not only reflects a spirit of nationalism so explosive that it bursts into imperialism but the fact that the communism which the USSR brought to China in 1920 has developed in a direction opposite to that its sponsor intended.

Mao Tse-tung rose to power against Stalin's will and advice.


From the 1920's through World War II, Stalin wanted a Chinese Communist Party to be just strong enough to infiltrate and harass the Chiang Kai-shek government. He wanted to keep it weak and divided, manipulate it in accord with Kremlin dictates until the Kremlin decided to take over by proxy. The last thing Stalin wanted was a Chinese communist movement led by Chinese with minds of their own and strong enough to conquer the country and become a potential rival of the USSR for the leadership of world communism. But this is what Stalin got from Mao.

Stalin had urged Mao to build

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Chinese communism on the foundation of the city workers, the proletariat of classic Marxism. Mao built Chinese communism on the mass base of peasants. As late as 1945, Stalin told Mao to dissolve his Red Army and to come to terms with Chiang Kai-shek in a coalition government. In answer Mao kept expanding the Red Army until it overran all China, enabled him to evict Chiang to Formosa, and on Oct. 1, 1949, to proclaim the establishment of the Chinese People's Republic.

He likes to talk in homilies and in a language that blends Confucian with Marxist maxims salted by the peasant's grim humor.

"Dogmas are more useless than cow dung," he declares. "Dung can be used as fertilizer."

As flexible in tactics as he is tenacious in strategy, Mao would discard his own most famous dogma—that of Red China's need to lean to one side, namely to the Soviet—and lean toward the West if this would ensure the more rapid upbuilding of Red China's industrial power. Any such change of pace would be only a temporary expedient—a moving backward ideologically to leap forward economically. Mao believes that it is Red China's destiny to conquer the world in the name of communism. Since the Soviet leadership has the same objective, this raises the interesting question: How many world conquerors, communist or otherwise, can you have?

Anxiety over the demands and dynamism of Red China has been a major reason for recent Soviet efforts to relax international tensions. In proposing to the West a collective security pact for all Europe, for example, the USSR is not only seeking a breathing spell that will let it focus attention on domestic difficulties and on consolidating its position in foreign affairs. Nor is it only conceding that NATO has stopped Soviet expansion toward the Atlantic, or that Russia's present rulers are less imbued with revolutionary zeal than the founders of the Soviet state. The Kremlin is also preparing for itself an escape hatch, in the form of a temporary way of living with the West that, in the years ahead, could be turned into an association against a belligerent Red China as world mover and shaker.

This intention was expressed in a revealing remark by Khrushchev a few weeks ago at the Fourth of July reception held by the U. S. Embassy in the garden of Moscow's Spaso House. On this occasion, Khrushchev gripped the arm of an American air attache and said, "If there's going to be a war, let's be on the same side."—HERBERT HARRIS

What's back of Red concessions

Current warm-up to West promises more friendly gestures to come

AN ALMOST psychotic fear of a remilitarized Germany is driving Soviet leaders toward dramatic concessions to the West—including possible withdrawal of Russian soldiers from East Germany.

The Russians also may be expected to view with greater interest possible acceptance of western proposals for disarmament and nuclear weapons inspection.

This view of the Kremlin's new go-easy policy was expressed by a responsible U. S. government expert on the Soviet Union in an interview with NATION'S BUSINESS.

The official expects the Russians in coming months to do almost anything to reverse the trend toward resurgence of a militarily strong Germany. The Red leaders fear a Germany rearmed and someday equipped with nuclear weapons far more than they fear the United States. German military might has historically been aimed at the heart of Russia.

"Rearming of Germany upsets the balance of power which has prevailed in the world since World War

II," the official said. "Russia's leaders see the balance swinging sharply against them now." Thus, in their current peace offensive and in their long-range plans, they may be expected to take repeated steps to discourage large-scale rearmament of the Germans.

At the same time, Kremlin bosses are laying plans for an alternate course of action, should their olive branch gestures toward the West fail to lessen enthusiasm for the rebuilding of German armed might.

This alternative course embodies careful conditioning of the Russian people and armed forces for the terror of sudden nuclear war, whether arising from a lightning attack on the West or by the West.

In addition to possible offers of a military pull-out from East Germany and acceptance of western disarmament plans, watch for these other conciliatory moves by the Russians in coming weeks:

1. A proposal to withdraw Russian armed forces from other satellite countries in Europe.

German military might historically has been aimed at the heart of Russia. Red leaders fear rearmed Germany far more than they fear the United States



2. Further lessening of tensions in Asia.

3. A step-up in the new Russian attitude of general cordiality toward the West, including further relaxation of travel barriers.

The new Russian attitude has been backed up by recent events, such as the dramatic Soviet decision to grant sovereignty to Austria, Red China's release of American fliers, release by the Russians of Austrian prisoners and others.

It was apparent also in the decision to relax the pressures in the Formosa Straits area. In May, Chou En-lai broadcast from Peiping the strongest indication of easing tension in Formosa by saying it was a matter which could be settled without war. In this he echoed what he had said at the Bandung conference a month earlier. India's roving Ambassador Krishna Menon came out of China after talks with Chou and Mao Tse-tung full of what he called a feeling that peace was in the air.

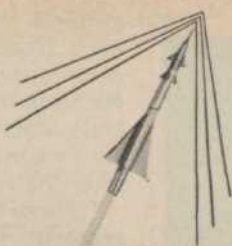
Prime Minister Bulganin promised in late June that the Soviet Union would "make every effort to reduce international tension and increase confidence among nations." On the same day in San Francisco a French diplomat described the Big Four foreign ministers' meeting as a crusade of amiability. His observation was prompted partly by Soviet Foreign Minister Molotov's agreement on plans for the Geneva talks although the Russian's speech included enough of the old Soviet lines to dispel any notion that the Kremlin had reversed its stand irrevocably. In similar vein Moscow's *Pravda* in July praised a New York *Times* editorial recommending cultural exchanges. The communist newspaper, however, blamed the U. S. for hindering such exchanges.

The new Russian policy is indicated also by what the communists have not done.

For example, when Prime Minister Jawaharlal Nehru in the Indian Parliament on March 31 viciously attacked and denounced western world policies, the communists might have used this development as the basis for a tremendous propaganda push.

Like Russian peace overtures of the past, the current and projected gestures of amity and concession will be full of booby traps.

For one thing, Russian offers of military withdrawal from East Germany—in exchange for removal of U. S. troops from Europe—could be dangerously misleading. Soviet leaders can recall their soldiers but leave behind a communist political regime



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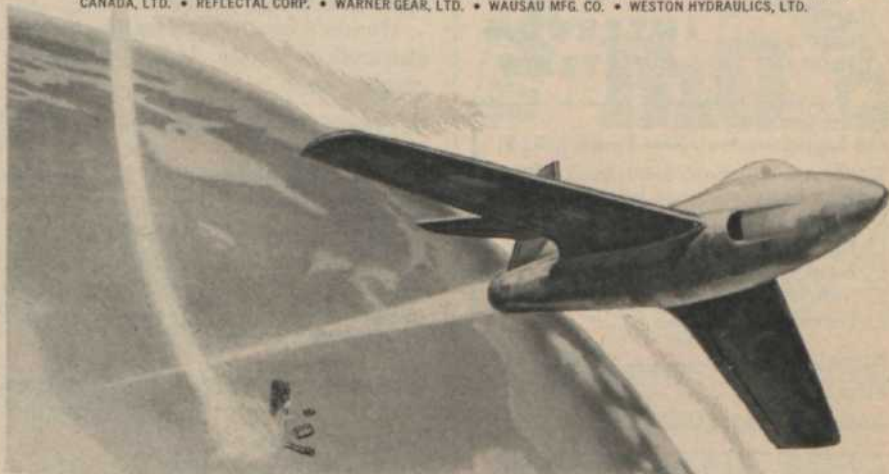
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strongly loyal to Moscow. Moreover, Russian acceptance of atomic disarmament plans, including plans for inspection of Soviet nuclear installations, would constitute no major concession. It would be easy to hide the nuclear facts.

"These boys are clever," the government official said. "They can move the Iron Curtain around like a suitcase, allowing you to think you saw what was going on but all the time hiding the real facts from view."

He emphasizes that Soviet concessions, now and in the future, are short-term accommodations designed to serve the Kremlin's long-range objective of world domination.

The current willingness to make deals, relax pressures, talk peace, does not mean a change in this objective. They'll turn frigid again just as soon as the change is expedient.

Another significant probability is that Russia may soon offer to release Japanese prisoners. Thousands have been held since World War II. Such a move would be aimed at restoration of relations between the USSR and Japan. Although the repatriation of detained Japanese would, to the free world, have overtones of conciliation, the motive of the communist masterminds is to hammer a wedge to break Japan away from the West.

Russia is buying time. Launching of her next Five Year Plan in 1956 will find the communist leaders working to integrate the Soviet economic, political and military effort more closely with that of her European and Asian satellites.

The military phase of this integration is already near completion. Russian output in arms continues at record-breaking peaks, with recent displays of new types of jet aircraft climaxing Soviet research and development in the weapons field.

She can be expected to refine these instruments and to accelerate her development of nuclear weapons and continent-spanning guided missiles capable of delivering hydrogen warheads at terrifying speed.

Russia's economic health, though strained, is strong. It is strained because:

1. The cost of nuclear development is high.
2. She has 5,000,000 men under arms.
3. She is trying to provide China with the tools for industrial buildup.
4. There is considerable pressure to raise the standard of living of her people.

The government official warned that we must not expect economic collapse in Russia.

Drastic steps to increase food pro-

duction, he said, will pay off to some extent, even if the experiment must ultimately be declared a failure. He pointed to the decision to plow up 70,000,000 acres of virgin and unused land in Central Asia and Siberia. This move is being taken to double by 1960 the 1940 cattle numbers through the growing of more grain and corn. This goal cannot be reached. By next year, possibly this year, the newly plowed region will be a dust bowl. Rainfall is low, the growing season short.

An indication of the experiment's lack of progress came recently when the Soviets announced extra pay for those working on this project.

But, whatever the extent of failure, some extra food will be produced and can provide a stopgap for crop failures elsewhere. Much the same thing happened last summer when Ukraine wheat production was off because of drought. Whether quotas are met is not the question. The important thing is to produce something extra.

Coupled with the agricultural program is the industrial program. Last year Russia announced her intention to double her investment in equipment for production of consumer goods—an increase from a 7,600,000,000 ruble investment to one of about 14,000,000,000 rubles.

But heavy industry gets a 10,000,000,000 ruble boost—from about 80,000,000,000 rubles to about 90,000,000,000.

The complexity of Russia's food and economic problems is illustrated by population shifts. In 1926 the town population was about 26,000,000. Today the figure is approximately 85,000,000. Meanwhile, farm population increased only about ten per cent.

Kremlin leaders are exerting tremendous pressure on farm workers to produce more in order to feed the men who work the industrial machines.

Actually, there is one note of hope, but our government leaders aren't counting on it. It's the fact that the top echelon of present Russian leaders are, without exception, older men—men whose roots go back to the earliest days of communism's rise to power.

Within ten years, perhaps, most of these men will be gone, either because of death or palace revolution. After them must come other leaders, younger men who may in time come to regard the cost of continuing the original world domination doctrine too high a price to pay.

What relations with the West they might seek is a question that cannot be answered but which is tantalizing in its implication.

END

LIBERIA

(Continued from page 27)

sophistries of city life. Men's country-cloth robes, striped and embroidered, reveal the tribe, clan and family as accurately as a Scottish tartan. Tall, red-fezzed Moslems with bright blue cotton robes over an inner white gown stride along. Fanti fishermen from the Gold Coast pause for a brief curb-side palaver. Powerfully built, they wear togas of bright blue and green prints over skin burnt to a dark purple sheen from years on the equatorial sea.

There are the small Gola from the West and the fighting Loma from the North. There are the Vai—"The Vai were never slaves!"—the Kpelle, Bassa and Kru. Though their dress is as fanciful as the plumage of the jungle cock, these tribesmen are not just natives. The present president of the World Health Organization is a Kru. Dr. Joseph Nagbe Togba had been a mission schoolboy who went on to Harvard and a degree in public health. Like most others, he wears his tribal robes over his European clothes, especially when on state affairs where a man's pride in his country is important.

Further out the headland is Mam-



Firestone's hydroelectric power plant on the Farmington River houses three 1,250 kilowatt units

ba Point where the embassies and legations are—among them those of the United States, Great Britain, Germany, France and Italy. Here in homes that would do credit to Palm Beach or La Jolla live the wealthier Liberian families. There are one or two gay parties on Mamba nearly every night . . . And here, also, one notes that ours is the only embassy with largely colored personnel.

A special session of the legislature was called to enact a new bill to encourage immigration to Liberia of Negroes possessing various needed skills, trades and professions. Inducements were 25 acres of land granted in perpetuity—if cultivated—plus three months free lodging and other help at government expense. Encouraged are engineers, agriculturists, professional and businessmen and practically all the categories of tradesmen, carpenters, plumbers, mechanics, hatmakers, dentists, technicians, dry cleaners, hair dressers and aeromechanics, among two dozen others.

The conceded intent is to draw upon the explosively overpopulated islands of the West Indies, rather than the U. S.

Liberians, out of politeness, will avoid discussion of this discrimination. But at the Italian legation a lady lit a cigaret and gave me a very level look. "I was born in Africa—here in Liberia. I spent 20 years in your country and I know what I'm talking about. We don't want your American Negroes—with very few exceptions—as immigrants. They have lost the pioneer spirit. We want to attract the pioneer who knows his own life will be hard—and that of his children—but whose grandchildren will have a chance of being free and prosperous citizens of a proud new country of their own."

The next day an American, Otto Schaler, for several years confidant of the President and the man who handles his government's public relations in the U. S., took me to the fabulous Bomi Hills up in the edges of the hinterlands.

Once across the low, modern, steel-and-concrete bridge spanning Monrovia's St. Paul River, you are in bush which before long skirts high forest. Innumerable creeks cross the road and, at every one we passed, groups of men, women and children were bathing and cavorting together in the muddy waters.

"They just brush the small crocodiles aside," Mr. Schaler told me with a straight face.

Occasionally we passed men with climbing ropes around their waists scaling coconut palms and once there was a group of men kibitzing in the sultry morning while another hacked away with an adz on the two to three year job of hollowing out a tree trunk as a river canoe.

We passed clover-leaf-shaped farm lands of a bit less than an acre. "This," explained Reggie Townsend, the President's press secretary, "is ancient crop rotation. A family, or a village, sends out its men to cut down the jungle on enough ground to provide cassava and rice for the



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year. We do not bother to survey it. There is no need to be geometric; just cut in widening clover leaf quarters out from the edge of the village compound as the village grows."

After the bush is cut it dries quickly and is burned. The field is turned over to the women and children to plant and harvest. Planting is all on the surface. No plows are used because there are no animals to pull them, but, for subsistence farming, it works. The following year that field is left, and the next clockwise is used, and so on, until, in the fourth year, the village men return to the first field which has in the meantime returned to dense jungle and completely revitalized earth. This happy-go-lucky farming is doomed to pass with Government's plans for increasing and standardizing agriculture for export as well as for subsistence crops—"when the road net is cut through."

The whole future of Liberia—of the whole of the old Slave Coast—depends on "when the road net is cut through." And, the fact must be faced, in roads Liberia still lags behind its British neighbors in Sierra Leone and the Gold Coast. But the good dirt road to the Bomi Hills is typical—hard packed red earth reasonably graded; in the dusty season even a mask will not keep the fine red grit out of your back teeth; in the muddy season it is, at least, not dusty and that's the best you can say for it. There are about six or eight weeks in between each season.

As we neared the Bomi Hills we passed through a tiny village of white clay walls and palm thatched roofs.

Women in brilliant turbans gossiped in the noon day quiet while the

men gathered in the open-sided council hut to smoke and rule their simple world. But the children were shrieking up the road to the tinkling bells of a just-parked ice-cream truck out of Monrovia, for all the world exactly like a Good Humor wagon—except that the name was "Mrs. Cooper's Ice Cream." Mrs. Sophia Cooper is the wife of the Secretary of Agriculture.

The road in general followed the edge of the lower forest, but we caught occasional glimpses of the imminently engulfing, and somehow sinister, wave of gigantic dark green above us.

Primitive villages the world over will tend to string out along the road or trail if there is one, only taking the circular compound shape where defense is a preoccupation. In Liberia there is peace; the Vai village just outside the Bomi Hills mines is more than a mile long and less than 100 yards wide. It is an enthusiastic, if bizarre, market.

Pineapples, grapefruit, cassava, piasava, rice, all are jumbled along the way with country cloth, red fezzes, silver beads, black and gold embroidered Mandingo caps, red palm oil for cooking and the mildly stimulating kola pods which look like big red chili peppers.

Past the market was the towering bleak, red and gray mass of the Bomi Hills mine, cut deep with the powerful strokes of modern man's machines, naked of the dense green growth which had shielded it for thousands of centuries.

President Tubman's first term had been marked, at the outset, in December, 1943, by two significant events. First, President Roosevelt concluded an agreement to build both a harbor at Monrovia and Roberts' Field as a United States Air Force Base. Second, Doctors (of Mineralogy) Walter N. Newhouse, Thomas P. Thayer and Arthur B. Butler, Jr. arrived in Monrovia and shortly headed for the Bomi Hills with Arthur Sherman, now Director of the Bureau of Mines and Geology, a young, U. S. educated Liberian mining engineer. Years of exploration, testing and, finally, the raising of capital began. In 1949, Republic Steel was brought into the picture as the contract operator at the same time as an Export-Import Bank loan of \$4,000,000—long since repaid ahead of schedule.

President Tubman has refused to allow exploitation of his country's resources.

He took for Liberia a 25 per cent share of the net profits at first until the initial capital investments were partially amortized; since then Li-

beria's share of the receipts has steadily risen to 50 per cent for the life of the mine.

The mine at Bomi Hills is a deposit of the world's richest iron ore. It is open-face mining; all you need is a power shovel and a little dynamite to break up the rock. The ore now being mined by 1,750 men averages 73 per cent iron. (The famous Mesabi range in Minnesota in its best pockets only went 51-to-53 per cent.) They are raising production from 1,300,000 tons to 1,500,000 a year. The mountain of ore will sustain that rate of digging for the next 35 years, or more. Two diesel electric trains daily carry 10,000 ton loads to the harbor at Monrovia where ore boats shuttle between Liberia and the U. S.—with enough left over to send a few to Great Britain.

Within the gates of the Liberian Mining Company lives a colony of 186 Americans and Europeans in their electrified, air-conditioned bungalows straight from the pages of an interior decorator's diary. The Republic Steel Company sends these couples out for two year tours of duty before a three month's home leave. The charming young wife of an engineer said, "Life out here is like it is on an Army post overseas—only better. There's no reveille." Feminine and crisp in a strapless cotton dress she whisked off to a bridge party which would turn into cocktails when the men quit work at four o'clock.

The relationship between the



In Liberia, the hearty American handshake is out of order. Here's how natives greet in Monrovia

whites and the Liberians at Bomi is a model of how to get along in someone else's country.

Near the American Colony at Bomi is the landscaped plateau where the Liberian supervisory families live surrounding the modern country club. The native laborers live over the hill in Zinc Town, so-called for its brick huts with galvanized roofing. Cooking, community dances and movies are the life of these people.

The unskilled labor turnover is

enormous by U. S. standards—fully 80 per cent a year—not because of working or living conditions, which are excellent, but because most men work only to make enough money to pay off an obligation. When they make it, they simply go back to their bush homes until they need more. Pay runs from four cents an hour for common labor to 28 cents an hour for truck drivers and bulldozer operators. Thirty cents a day is considered good pay for unskilled labor in West Africa and as much as \$2.44 a day is wealth.

On the way up to the open face where pneumatic drills were hammering holes into the mountain side for the dynamite, we went through the sprawling headquarters building. Row upon row of bookkeepers, accountants, engineers and draughtsmen were at work.

Dr. John Sly, Chief of In-Tourist and the number one schoolteacher of the Bomi Hills project, was enthusiastic about the future of Liberia and its people. "We find that Liberians make extraordinarily good office help and supervisors. Here at Bomi we have them integrated into the system all the way up through the executive levels."

The sun was dropping into the green when we crossed the railroad tracks—the ties cut from solid mahogany—and headed for the jeep. The mine whistle blew, even as it does in the mountains of Colorado. But as it died, a different sound wavered up into the evening air. "La ilaha illa' Llah: Muhammed rasulu Llah." It was the muezzin's call to prayer, for there are many of Islam's faithful in West Africa—nearly as many, perhaps, as Christians.

"It has been proved within my own lifetime that the civilized population (of Liberia) cannot get along without the so-called uncivilized," President Tubman told the National Executive Council.

It was the first time representatives of all elements of Liberia had been brought together under one roof—tribal chiefs, senators, judges, doctors, farmers. The purpose was to give them a message of presidential hell-raising. "Neither can the so-called uncivilized population get along without the civilized—and no longer can either element exterminate the other."

A peculiar, but real, phenomenon of any rural country is that roads do tend to magnetize the people. A roadless country, like much of Africa, will colonize itself haphazardly and with little understanding of people in other and remote patches. But in an area with roads, the population will begin to flow toward the estab-



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lished lines and meld there. Using this fundamental, President Tubman plans an initial grid of four north and south roads crossed by at least three major east and west roads and a parabolic belt highway skirting the country's borders.

Equipment is no great problem for the time being. R. G. Le Tourneau, from Texas, has already located in Liberia a powerful nucleus of heavy equipment ranging from tree-stringers capable of pushing over 150-foot trees in the high forest, to bulldozers and graders so enormous that they must be powered by a separate electric motor in the hub of each seven-foot wheel.

Another American developmental company is the Firestone plantation employing 25,000 persons. The first real developers from outside, the Firestone people live in a country club atmosphere. They ship from their docks on the Farmington River ten miles inland 35,000 tons of their own processed rubber a year, as well as the output of 30,000 acres owned by some 750 Liberians.

These native farms are somewhat less orderly in a geometric sense than the Firestone operation, but the product is still good, inexpensive natural rubber, though the life of the tree is somewhat lower than the 35 years they estimate for Firestone trees.

Altogether, Firestone has invested more than \$75,000,000 in the Liberian plantation and the processing factory. There no white men are employed under the very top supervisory jobs—and some of those posts will be filled in time by Liberians as more and better trained men become available.

But even in the wondrously well organized Firestone plantation, the location of the best and most modern hospital in West Africa, the labor turnover is enormous. As in the Bomi Hills, this does not result from dissatisfaction; it is partly because "all Liberians are born retired" and because of ancient and whimsical economic practices.

"Still present in the tribal countries," a long-time Firestone veteran executive told me, "is the custom of pawning a man. If a man gets in debt and has no money, he simply pawns himself to the creditor—or a labor broker who farms him out until the debt is paid."

New industries are springing up faster than the chamber of commerce can count them. A saw mill from the United States is under construction to cut mahogany; iron-

wood and other hardwoods are being fabricated into frames for furniture to be finished in the U. S.; a 15,000-kilowatt hydroelectric power station is being surveyed along the St. Paul River above Monrovia; roads are being cut through to the Putu Hills and beyond to Tchien; a new mining company, Liberian-American Minerals Company, whose president is New Yorker Johnston Avery, has completed surveys of the first range of Putu Hills after cutting in a jeep trail for 70 jungle miles.

They estimate that they will take out 5,000,000 tons a year of high quality iron ore within the next three years. Already they are expanding the rough little landing strip into one capable of taking a freight-carrying DC-3.

At Putu the first range of the two parallel ranges has been cored and the results can be evaluated by the fact that stock selling for \$10 to \$20 a share in early 1954 was unavailable at \$140 in June, 1955. They are now attempting to determine if the second parallel Putu range is as rich; if it is, they can run the rail head up between the two ranges and load

by Hallicrafters, and an aerial survey of mineral resources is underway.

Even the missionaries of Liberia seem unique. Most major Christian sects are represented—the oldest Christian church being Episcopalian. A major missionary group operating throughout the country is Islamic; they are doing a thorough job of education in the academic, trade and agricultural schools. So good is the job, in fact, that President Tubman, a Baptist, proposed a Muslim for the first Minister (Without Portfolio) for Religious Affairs. Mr. Tubman's concept is that bringing religion in through schools is necessary but he insists that the religion taught shall be in sympathetic proportion to the religious tendencies of the local community being served. State schools and missionary schools with federal help thus teach the Islamic faith in communities where Muslims predominate, Catholicism where Catholics tip the scales and Protestantism elsewhere.

Anyone who has traveled deep into West Africa has seen most missionaries being hard pushed by



Gate to world commerce is Free Port of Monrovia on the Atlantic

from both sides. In any event, in the 70-square-mile area granted to the Liberian-American Minerals Company to operate, American mining engineers estimate that upwards of 140,000,000 tons of the highest grade ore ever commercially mined anywhere are ready to roll down to the harbor.

Another new harbor is being built at Cape Palmas. An international airline is being formed under the Liberian flag to service Philadelphia-West Indies-West Africa and, in time, Europe. A country-wide radio telephone service is being developed

a little-known, but overwhelmingly zealous American sect of Pentecostal Christians—principally known in the central and southwestern U. S.—The Assembly of God. These young men and women evangelists have established 26 landing strips.

A Stinson plane is the backbone of their fleet. It services the missionary circuit on a regular once-a-week flight with mail and supplies and some passenger traffic.

Most missionary stations have about six landing strips within their ministry. The top aeromechanic of the fleet was until recently the husky

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young wife of a missionary. Their concept of their job? Teach. Teach literacy; teach agriculture; teach modern health methods; teach their own form of Christian monotheism without attacking any tribal traditions consistent with good conscience; don't try to put down polygamy in a country where it is needed; don't try to eliminate all that is useful and good in tribal lore, medicine and basically honest custom. In short, blend the best of both Christian and tribal, fly high and often, and serve the people according to what is best for them.

In a tropical country so full of yeast a politician's life is a full one. President Tubman, an expert skeet shooter, knows how to relax either on the presidential yacht or on his farm. So far, he has avoided the intrusion of the telephone at either place, but he has unusual problems. In a country where only Negroes are permitted to own land under the terms of the constitution, he has had a segregation problem—the fairer skinned, by and large, citizens in the coastal towns refused to go to school, and otherwise associate with the other natives until President Tubman knocked their heads together. This skull bouncing had another and perhaps not unexpected effect; it made President Tubman the most popular man in the highly populated hinterlands. As a result he simply can't seem to avoid reelection. For example, in the elections of 1951 his True Whig Party was virtually unopposed. Whereupon the United Nations made noises and President Tubman determined he was going to have a solid opposition next time.

During the 1955 election campaign, one of his supporters ruefully told me, "I wish we could get the President to work half as hard for us (the True Whig Party) as he does for the opposition (the Independent True Whig Party)." His zeal for a good opposition, although unavailing in the end, was topped when a few of the lusty lads from the party's back room went out and broke up the opposition party's press for printing unpleasant things about the President.

The next morning the President posted a \$4,000 reward for the miscreants and turned over to the opposition party for the balance of the campaign the facilities of the Government Printing Office—for free.

Even so he came out with a clear majority and a soaring economy.

Although recent pistol practice by a discharged member of the police suggests otherwise, he is still a man to whom Liberians of both parties drink with gusto.—WILLIAM A. ULMAN

America needs a



High production and sustained demand are not enough to insure continuing expansion of America's economy

WE MUST sell more goods and services in 1956 than we have ever sold before.

Every facet of our national economy depends on this.

In the first six months of this year the gross national product climbed to an annual rate of \$375,000,000,000—compared with a previous high of \$371,000,000,000 in the second quarter of 1953.

But, in the first quarter of 1955, personal consumption of goods and services was at the rate of \$242,000,000,000. This was the world's biggest market—but it is still well below our present production rate. Arno H. Johnson, vice president and director of research for J. Walter Thompson Company, estimates that personal consumption of \$274,000,000,000—about 17 per cent above the \$234,000,000,000 consumed in 1954—is needed in 1956 to assure the continuing expansion of our economy.

President Eisenhower's prediction in his economic report to Congress that "Our country can within a decade increase its production to \$500,000,000,000 or more," is one measure of the prospects for expansion.

To support this standard of production, we will need a minimum level of \$350,000,000,000 of sales to consumers, the experts say.

Only such a level of consumption can keep up with this growing productivity and our growing labor force. Only increased consumption can provide the revenue for a balanced budget and continued strong defense, and advance the standard of living to our full capacity.

This means:

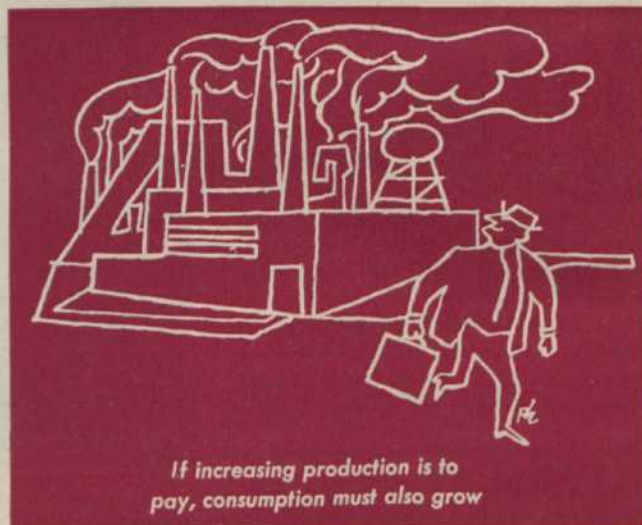
Business must apply the same scientific efficiency to selling that it has applied so successfully to manufacturing.

Let's take a broader look at some of the other elements in the picture. Here are a few factors cited by W. W. Wachtel, president of Calvert Distilleries:

"Population"—Four million babies were born in 1954, the largest crop of babies in our history. In the next 20 years, the population will top 220,000,000. That means more customers, more expansion.

"Manpower"—Everybody who will reach the employable age 20 years from now has already been born. We know that although the total population will increase, the group from 25 to 45, the prime employable group, will shrink by 2,000,000.

"Marketing Manpower"—It has been estimated that there are about 3,800,000 people today in marketing. This is grossly inadequate now. But they come from



the 25 to 45 year age group which will shrink 20 years from now. Good salesmen will be like diamonds and twice as scarce."

All of the factors spell blood, sweat and tears ahead for the forces of distribution, spearheaded by advertising and selling.

"Distribution is the alternate heart beat of production," says Al N. Seares, vice president of Remington Rand and former chairman of the board of National

million salesmen

Sales Executives, Inc., an organization of 25,000 sales executives responsible for the activities of more than 2,000,000 salesmen. "The only way we can keep the production machinery going is by moving its output at the end of the line.

"To do this business must keep its finger on the movement of goods through the jobber and the warehouse to the ultimate sale by the retailer to see that inventories don't pile up at any stage. Everything points to an urgent need for an aggressive betterment program in every area of sales.

"Nothing happens till somebody buys something. Each industrial salesman keeps 31 factory workers busy. He's the key man in our economy right now."

Who is this indispensable man? How many of him are there? How does he get his job? How does he learn to sell? And what is there in it for him?

Looking for the answer to these questions, NATION'S BUSINESS talked with vice presidents of sales for some of the nation's leading corporations, with top marketing consultants and other specialists in the field of distribution. Among other things, their answers made it clear that

We are lamentably short of salesmen and don't know where to get them.

We need to increase the productivity of our present force immediately and substantially.

We need to formulate and apply new concepts of selling to a complex and ever changing market.

Business as a whole is still production-minded and slow to wake up to the new possibilities.

However, a growing number of realistic pace-setters are beginning to do things in marketing. And it is with the ideas and doings of these men that this article is largely concerned.

The first thing asked of these men was: "How many salesmen are there?"

A widely accepted estimate that there are today 3,800,000 men responsible for translating the nation's output of goods into profit dollars through the art of selling comes from the American Institute of Management. Other reliable estimates put the total closer to 5,000,000.

Even so, there's general agreement with N.S.E. estimates that 1,000,000 new ones are needed. Business is having a bad time finding a fraction of these.

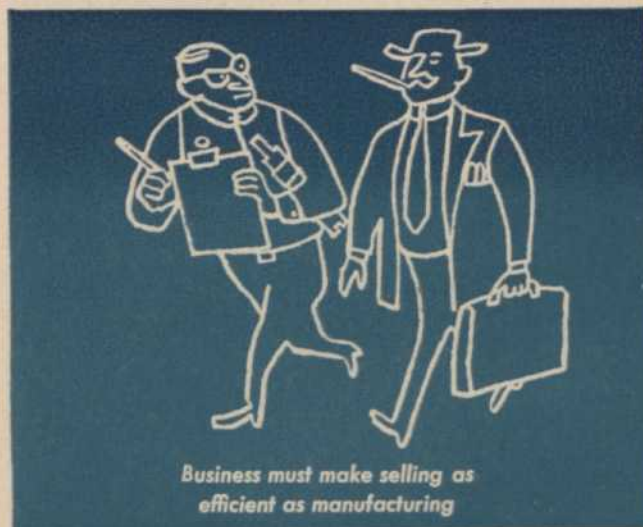
The competition for young men in the colleges is terrific. The young men coming out of the colleges today were born during the depression. The supply is thin now because the birth rate was low then.

Advertising, fiction and public opinion today glorify the scientist and his future in the brave new world of electronics, rockets and atoms.

Businessmen get pushed around in hiring lines and they come back with little for their pains.

Furthermore, there are colleges galore for engineers, physicists, chemists, doctors and other professional men. Countless trade schools are training technicians below the engineer level. But merchandising leaders say few courses in the high schools and colleges today are pointed at turning out men for merchandising and selling.

It's hard also to get a man into sales because the career of salesmen is under a stigma. Paul Roberts.



training specialist for McKinsey and Company, management consultants, says it's because of the grotesque picture of the salesman presented by radio, stage, screen and fiction.

Leo Nejelski, president of Nejelski and Company, management consultants, thinks it goes back farther than that. He says the Romans started it when they coined the phrase *Caveat emptor*—let the buyer beware. Accordingly, Mr. Nejelski points out, selling has always been associated with horse-trading, trickery and double-dealing.

"Recently," he says, "I was talking with a group of high school students—discussing their futures—and I asked how many were planning a career in selling. My question was met with total silence. Then one youngster piped up: 'Well, if I fail in everything else, I can always fall back on that.'"

"That's the attitude of entirely too many people today. It's time business started selling the job of selling."

Furthermore, says Carl Hoffman, partner in McKinsey and Company, there's a growing trend among young men to seek security and they don't associate selling with security.

"When I got out of Harvard Business School," he says, "the big aim was to get into sales management. When I went back for my twentieth reunion, the boys

A MILLION SALESMEN

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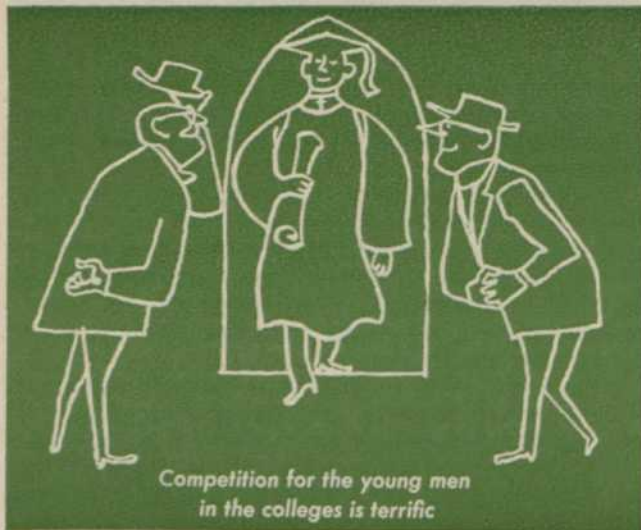
expressed a preference for staff work. In other words, they wanted to be advisers to someone who would take the responsibility. This is a dangerous trend and I don't quite know how to contend with it. Perhaps we'll have to offer more security in the selling field—and show the youngsters the real opportunities it offers."

But more urgent than finding new men, everybody agrees, is the necessity for making better use of the salesmen we have.

Says Mr. Seares: "We must increase the productivity of today's salesmen by at least 25 per cent."

Says Dr. F. F. Bradshaw, a partner in Richardson, Bellows and Henry, management consultants: "We've got to get the best men we can, and train them for the toughest competition anybody ever saw."

How is business going to find 1,000,000 new salesmen and step up the productivity of 5,000,000 others by one fourth? How is it to sell an additional \$40,000,000,000 worth of goods by 1956 and pep up its sales by 50 per cent in the next decade?



Not by button-holing a lot of men, giving them inspirational talks and sending them out into the territory armed with a price list and a kit of samples to high-pressure the unsuspecting public, say the experts.

"Selling today is as complicated as flying a DC-7," says Al Seares. "The market is complex, the products complicated and the public up to the minute on ev-

everything. But too many sales executives are flying blind instead of using adequate instrumentation. Too few realize that good market analysis is the greatest need in business today."

Other experts agree.

"The old concept of someone designing a product, someone making it and someone selling it is passé," says Edward McKay, marketing consultant for General Electric. "Good selling starts with a knowledge of what the customer needs, wants, will buy and will pay for. From this knowledge, the product is designed to fit the customer's needs and desires."

Once you find out what the customer wants, say the specialists, the next step is to find out who sells it to him and how he does it in the quickest and cheapest way.

How to do it?

"There's too much mumbo jumbo about selling. Too many practitioners are preaching a lot of inspirational hogwash," says Carl Hoffman. "Business must start by throwing out the idea that the salesman is a guy gifted with some magical selling ability. With the proper study of the job to be done, any man can sell unless he's utterly repulsive. There are as many types of salesmen as there are lines of products and outlets for these lines."

"The answer is to get down to realities and see what is required in the case of a particular product and market. Business must analyze the salesman's job—precisely what he's supposed to do."

1 How selling has changed

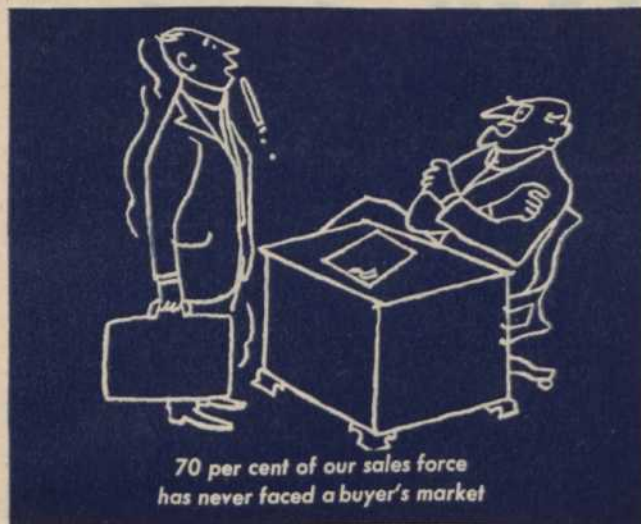
The pace-setters in today's complex new market picture are putting a lot of time, money and brainpower into finding out precisely what each type of salesman should do. Applying the science and precision of production engineering, they put every element of their operation under close scrutiny: the market, the product and the salesman, then set about making the most of all three. General Electric, for example, is conducting a two-year research study known as "The Consumer Goods Study Project," which promises revolutionary changes in the whole marketing pattern.

"To illustrate, we have studied the jobs of 1,800 sales engineers in the apparatus sales division," says Mr. McKay. "As a result, most of the work assignments will be changed."

First—and sometimes utterly confusing—results of these surveys emphasize the infinite variety of jobs the salesman is asked to do. Not only do the jobs vary from product to product and company to company but the salesmen within a large, modern company find themselves doing totally different things.

"Our men who call on druggists have to be indoctrinated into good retailing practices," explains H. M. Poole, vice president of sales for Johnson and Johnson. "We have a separate sales force handling hospital accounts—specialists in hospital practices. Other salesmen call on doctors, who expect the company representative to keep them informed on the latest product improvements. To hear these salesmen talk, you'd think they were doctors themselves."

"Each of these men sells differently."



*70 per cent of our sales force
has never faced a buyer's market*

The trend toward making the salesman a merchandising consultant is spreading to all areas of business. In the name of serving the customer, the salesman may find himself doing anything. Restaurant owners expect coffee salesmen to show them how to make coffee. The paint salesman helps evolve new ways for the housewife to use paint. The wallpaper paste salesman finds new uses for wallpaper. The auto manufacturers' salesman may pitch in and sell for the dealer or help develop local tie-in advertising. The business machines salesman tells the customer just how many business machines he needs and what he needs them for. Some salesmen just keep doctors informed of new drugs so they'll prescribe the right product. In this latter case, high pressure is a sure way for such a salesman to cut his throat; the doctor wants information—and information only.

Leo Nejelski, making a survey for McKesson and Robbins, studied the duties of the company's drug store salesmen recently.

"I don't know why you're studying me," said one of the top producers. "I'm not a salesman at all; I just do what makes the customer comfortable."

Here's what he was doing: setting up counter displays, helping remodel the store front, training the soda fountain clerks, advising the druggist on whether to send his son to a college of pharmacy, taking inventory in the stock room and dragging stock out where it would sell.

"I guess you'd better bring me a couple of cartons of sodium bicarbonate," a druggist said one day.

"You don't need any soda," was the impatient reply. "You've got six cartons back there already."

"This man had all the druggists eating out of his hand and his was the kind of selling that evolved for the whole company," says Mr. Nejelski.

In some cases, however, the trend is toward taking all the extracurricular duties off the salesman's hands

so he will have more time to devote to pure selling.

"In some lines at General Electric," says Mr. McKay, "it seems to us, since we have a shortage of salesmen, that we ought to make maximum use of each salesman's talent and give his extracurricular duties to clerks and technicians. In the past, some of our salesmen have taken not only orders, but complaints. They have handled credit and collection, inventories and order services. We're beginning to hand these things over to specialists because an increasing number of our representatives are highly qualified sales engineers and you have to make the best possible use of them to protect your investment."

"Such a salesman usually helps his customer understand the product in relation to customer needs. In other words, he doesn't sell a range or refrigerator as a separate item at all. He sells electrical living in the kitchen—fulfillment of the home-maker's desire to make her job easier, more interesting and economical. He either sells a total kitchen or, if he does sell one piece at a time, he helps the customer work toward a total kitchen in the end."

This generalization probably applies most closely to a manufacturer's salesman selling to a distributor or perhaps to a distributor's salesman selling to a retailer. But the job of the retail salesman has changed, too.



*The trend is to make the salesman
a merchandising consultant*

The retail salesman used to be a doorbell-ringing type who applied plenty of personal persuasion—to put it politely. Now he depends on advertising for his advance selling. He uses point-of-sale promotion and demonstration for most of his own selling today. Persuasion is always an element in closing a sale but it's not what it used to be.

In other words, a high percentage of the men called salesmen don't have selling jobs to perform. They're more concerned with inducing someone to give an order by other means—by advising, investigating or inspecting. Some salesmen are instructed not to take an order—merely set things up so an order will be taken later.

The important thing, say the sales analysts, is to recognize all the duties a man has to perform to do his job and set them up so he can do them. If you size it up, you may find him doing ten things and there just aren't enough hours in a day. So you have him do five things and do them well. Or perhaps you decide he should call on 50 outlets instead of 100.

A MILLION SALESMEN

continued



"Analyze what it's important for him to do," says Carl Hoffman. "If a salesman has too many things to do, he'll do the easiest things or the things he likes to do best. They're not always the things that bring in the most profit. The important thing may not be to get that order today but to talk with the customer about long-term needs. Set up the job so the salesman can do what benefits the company most. Then reward him accordingly."

"If you go out with two salesmen selling the same product for the same company, you'll more than likely find them doing it quite differently. If you set up the job so the salesman can do it more profitably for everybody concerned, you'll get your 25 per cent increase in production and everybody will be happy."



The successful salesman is the one who sells fulfillment of dreams

In a study for an apparel company selling through department stores and men's shops, McKinsey and Company analyzed the activities of a sales force of 150 men. They called a meeting of regional and district managers and held a discussion on "Just What Is The Salesman's Job." The managers disagreed widely. Finally, a consensus encompassing all his duties was reached.

"When we priced it out," says Mr. Hoffman, "we found it would take 600 salesmen to do the job these people wanted done."

The solution?

The apparel company cut its accounts 50 per cent. (After a survey showing the other 50 per cent yielded

only two or three per cent of the volume.) Then it put on more salesmen, got the right men doing the right jobs and made other indicated improvements. It's too early to report results but company officials are already certain that the new system will bring in a much higher share of the total volume in the industry.

2 Kinds of men who can sell

If sales success involves putting the right man on the right job, how do you find the right man?

First, all the specialists agree that there's no set salesman type. The day of the psychological talent tests that presumably picked the right man on the basis of a list of characteristics has passed into limbo, too. Psychological tests are still used but, as one marketing expert put it:

"No one has ever devised a test to substitute for good judgment and careful checking of past performance."

"I can't give you any formula for picking a salesman," said Dr. Bradshaw. "We think it depends on what the salesman is going to do, whom he's going to see, under what conditions he's going to work and the kind of reward he's going to get."

Dr. Bradshaw likes to tell of one big corporation which worked out a formula for hiring salesmen. It came up with a beautiful chart.

"Just hire the men who fall within the area on this chart outlined as the hiring zone and you'll be sitting pretty," the experts said.

The corporation gave the test to the 30 best men in the company and found that the hiring zone test eliminated half of them.

Dr. Bradshaw's firm goes at it this way:

"If you ask us how to select salesmen, we'll say, 'Show us 25 of your best men and 25 of your worst. We'll check the education, background, family finances and work history of each individual. We'll throw in a whole battery of tests. When we get through we'll have some 1,500 items of information. Then we'll pick out 100 items which are true of the 25 highs and not true of the 25 lows. From this we'll be able to point out a number of characteristics on which to base the selection of new men."

"If you realize you have to do a lot of hardheaded research and you're not too hopeful of your ability to pick the supersalesman, you can learn to eliminate the undesirables," he says.

Some marketing specialists say this method of selection tends to perpetuate the old blood in the company where changed sales conditions require new talent open to new ideas.

The Life Insurance Management Association of

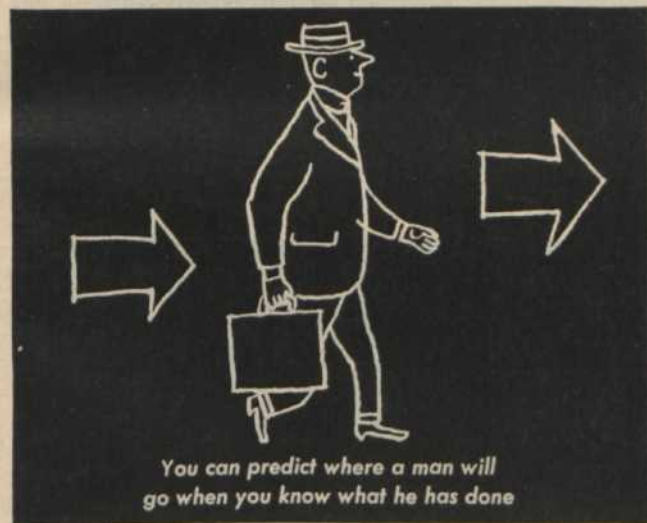
Hartford, Conn., has worked out a series of tests which do a good job of predicting failure but don't always promise to predict success. They consist of two major sections.

Section One can be described as biographical. It includes such items as: number of organizations of which the applicant is a member, amount of net worth, amount of education, etc.

Section Two is an interest and attitude questionnaire tailored to the particular situation.

"We recommend that companies use this double test as a preliminary screening device," says Donald Peterson, research associate in charge of testing, "and most companies eliminate about 50 per cent of the applicants on this basis. Then they apply other selection procedures to the remaining pool of men. This offers a quick and inexpensive way of eliminating a large proportion of the potential failures without losing many potential successes, which is the best that any preliminary screening device can do. Unfortunately there is still a considerable number of failures among the men who pass the test.

"If a man scores low on these aptitude tests," says Mr. Peterson, "we can predict with confidence that he will fail as an agent. However, if he scores high we cannot predict with equal confidence that he will be a success. Thus the tests are good but not perfect tools for selecting life insurance agents. This does not mean that they will be good for selecting other kinds of salesmen."



Johnson and Johnson has worked out a selection procedure based on careful study and long experience which all the marketing experts rate highly. It has provided the company with salesmen who are well trained and well educated and who receive incomes commensurate with executives' standards.

"We don't use testing procedures to any degree," said Mr. Poole, in explaining the selection procedure. "Tests help; we use them for what they are worth. But in choosing our salesmen we look mainly at what the man has done and apply that to what he can be expected to do."

Though it doesn't adhere to them as rigid rules, the company looks for the following characteristics:



Stability,
Industry,
Ability to get along with others,
Loyalty,
Perseverance,
Self-reliance,
Leadership,
High degree of maturity,
Good motivation (What does he want out of life?)

Favorable domestic situation (childhood and present)

Health—physical reserve

In other words, the company wants to know a man's capabilities, what he's done, how he's used his abilities, how he has applied himself in his youth. Did he stand out in athletics? Did he have a paper route? In other words, did he work or take it easy?

"The psychiatrists and sociologists have succeeded in proving one point," says Mr. Poole. "You can predict what a man will do if you can find out what he has done. When we hire a man we know more about him than he knows himself."

Mr. Poole said that such a process would indicate the quality called salesmanship.

"If you examine a questionnaire carefully," he said, "you'll find qualities which indicate that a man is a leader. If he's been a leader in school or afterward, he has had to sell people. You don't lead people nowadays without selling them."

Everyone agrees that a man doesn't have to be a gregarious, aggressive extrovert type today to get a job as a salesman. An introvert technical expert may do twice as good a job. The best general criterion seems to be: What particular thing is he interested in? However, everyone agrees that a comprehensive knowledge of marketing is an asset that can't be beat. With this, a man is almost sure to find a good niche for himself in the distribution field.

A MILLION SALESMEN

continued



3 New thinking on sales training

Complexity of the market and the need for specialized selling has shaped the new thinking on the training of sales personnel. But too much of the old thinking still persists, in the opinion of forward-looking sales specialists.

"We can no longer afford to manage by exhortation and incantation," says one. "It's the quarterback and not the cheerleader who master-minds his team to victory—or defeat. The Englishman who assumes that shouting louder will make a native understand English has nothing on the sales manager who thinks enthusiasm can substitute for knowledge."

"Too much of selling today still relies on the inspirational sales talk," says Paul Roberts of McKinsey. "The real way to sell is to show, show, show."

"The progressive company today is the one which applies the demonstrated ability of its top-flight salesmen. Often a salesman can't tell what it is he does to sell because he has acquired this skill through trial and error. However, through observation of such salesmen we collect a body of knowledge which can be passed on to the trainer, then used in training sessions and on-the-job coaching."

"All our clients employ practice sales demonstrations. The salesmen themselves coach the new men under the direction of the district manager. The men thus learn to sales manage themselves. The salesman out in his territory is on his own more than any other type of worker. It's a lonesome business. He must plan his coverage, his sales call, his cycles of work; check the stock of his customer to determine needs, check the customer's problems, work out solutions and then sell the solutions. Good persuasive ability

is always an asset but it isn't the first consideration in hiring salesmen today.

"Too few companies are doing these things today. Industry has been production-minded, still hasn't learned what the selling job consists of. One young man who came to me had been working with one of the bigger companies. This fellow was in trouble. He was a well educated, good-looking former football player. He liked people. He wanted to make a success of marketing. I felt that he was a number one man. He told me:

"For 18 months I've been out in the territory. I haven't seen a man from the company. I've had nothing but fight talks—by mail. Nobody has passed on any real know-how. They just handed me a price list and some instruction folders to read and took me around the factory."

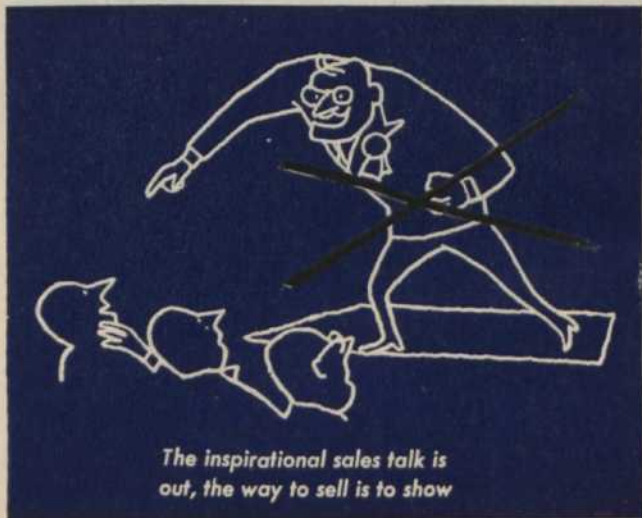
"I sent him to a company that thoroughly trains its men, in well directed schools and sales demonstration. He's now on his way to becoming a fine vice president of sales."

Marketing authorities say the Minneapolis-Honeywell training system rates high among the technical industries. M-H builds and sells some 9,000 devices and systems. All have the common denominator of automatic control.

To sell these products, the firm's salesman must have a high degree of technical competence as well as sales ability. He must be able to recognize and recommend how an automatic control device or system can solve a specific problem—the control of temperature in a skyscraper, the automatic operation of a factory production line, or the application of an electronic system to the control of fuel flow in a jet plane.

The company's 1,100 salesmen are, therefore, engineers first and salesmen second. Nearly all hold degrees in engineering subjects. Few have had previous sales experience.

The company meets this peculiar problem through a sales training program that it feels is unique. Called the "Integrated Development Approach," it consists of weekly seminars in each field sales office, plus close

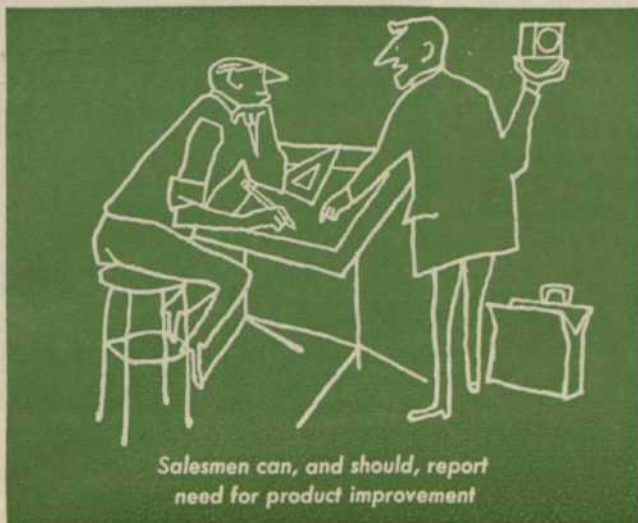


cooperation between the manager and the salesman.

Cast in the role of either salesman or customer during the weekly sessions, the salesman considers specific sales problems. Solutions are based on the total experience of the group. During the week he tries the techniques in his calls. At the next meeting he

reports the results. Then the entire group can benefit from his discovery of what was good and what was bad in their practice selling sessions.

The program has raised the company's creative sales 50 per cent in a single year. New customers and new automatic control applications are being found in areas where calls had never before been made. New



men are producing as many sales as the old-time sales leaders. Branch office morale is high.

Because the manager and the salesmen work closely—often making calls together—personnel relations are improved, the manager has a keener appreciation of the field problems, and the level of management ability is raised along with the level of sales skill.

Johnson and Johnson has applied much of this same type of technique.

"When I joined Johnson and Johnson 15 years ago," says Mr. Poole, "I just got a price list and a bag of samples. Today the training is exhaustive.

"We train a man in the field, right on the job. He enters a six months' regulated training program. He's a producer while he trains."

For the first six weeks, a senior salesman, schooled as a trainer, works with the man. Then a divisional sales trainer. After six months the man comes in for sales school.

"You may ask why he doesn't go to school in the first place but there's a reason for that," says Mr. Poole. "If we sent him to school in the beginning he wouldn't know what we were talking about. At the end of six months, he has every opportunity of becoming a good salesman."

These methods follow a trend. Companies are working to develop better sales training and supervision. The two go hand in hand. Most of the better companies have their own market analysis. The training of the salesman is in the direction of applying the market analysis to do a more exact job. A growing number of companies use the salesman in market analysis.

"Every year we bring in 14 of the best men from the field," says Mr. Poole, "to review our advertising effectiveness, promotional planning, salesman's equipment problems and salesman's income and to learn how well we're administering our compensation program. The salesmen tell us frankly just what's right and what's wrong.

"They gripe about anything they want to. This phase of the review might be called an attitude inventory. It's great for improving morale.

"This is not widely done in industry but we find it effective.

"Too many firms fail to recognize the importance of salesmen feeding back the shortcomings of products—perhaps to show the need for improved or new products," says one marketing consultant. "The salesman is the best man to do it. Five million salesmen making five calls a day make 25,000,000 contacts a day. Thus if our population is 165,000,000, they contact one sixth of the population every day.

"There's a great meeting of minds but not enough feed-back. That's why the smart companies today are realizing the importance of the lost order report and the call report. These bring to light weaknesses that need corrective action, weaknesses in product or sales technique."

Sales seminars, on-the-job coaching, group demonstrations—all these provide a means for training and what grows out of training—supervision.

"Don't think that when you train a man he stays trained," says one market consultant. "You have to continue training him, through supervision, as long as he's selling goods."

Most selling organizations have always looked at things through the eyes of the sales manager. Marketing specialists today agree that, if business is to get and keep the men it needs, the picture will have to be viewed from the standpoint of the salesman, too. Some of these specialists are trying to find a method of taking a running fix on what the salesman thinks; that is, attitude studies.

"The morale of the salesman has always been sadly neglected," says Dr. Bradshaw. There's a lot of downward communication from sales manager to salesman but little upward from salesman to sales manager.

"We've worked up studies which are a sort of inventory of the salesman's attitudes. They allow the salesman to express his attitudes toward such topics as compensation, credit and pricing policies, sales aids and methods, communication with the home office, supervision and teamwork and others. We're finding they do wonders for morale in a sales force."

4 What good salesmen are worth

Everyone agrees that there's nothing so good for the salesman's morale as the feeling that he's being well rewarded.

Rewards for selling today vary all over the lot. Some salesmen are paid meagerly. Some get more than

A MILLION SALESMEN

continued



they're worth. Some have to scratch like mad. Some ride the gravy train. Figures tell little.

A systematic survey of salesmen's compensation by Dr. Harry R. Tosdal, professor of Business Administration at Harvard University, shows that the average salesman's salary is \$5,400. A number of sales forces average less than \$2,400 a year; 44 average more than \$12,000.

Among the compensation plans combining salary and commission, the fixed portion typically amounts to from 60 to 65 per cent. Dr. Tosdal's survey shows that earnings of individual salesmen range from less than \$1,000 to \$75,000 a year.

Right out of college, the engineer has it over the salesman. Engineering graduates regularly get \$350 to \$400 a month to start; salesmen from \$300 to \$350. But the salesman goes up faster and, at the end of five years, the upper fourth of the salesmen are making from \$8,000 to \$10,000, according to N.S.E. statistics.

Figures released by the sales executives' organization show that more salesmen have incomes of \$5,000 and above than do members of other professions.

Salesmen who rise to executive positions with their companies, says the association, frequently earn \$25,000 a year. Many reach the \$50,000 or even the \$100,000 level. The Sales Executives Club of Chicago has figures showing that 48 per cent of the presidents of their 250 different companies rose from selling positions.

Yet a great deal is wrong with present systems of sales remuneration, in the off-the-record opinion of one prominent market consultant.

"The trend toward the guaranteed annual wage in industry shows the drift toward security-thinking," he says. "Management is prepared to invest in factories, tools, engineering and advertising on a fixed basis. But when they get into sales, executives seem to want the salesman to share the risk."

"There's too much thinking, 'If he gets the business for me, I'll pay him for it; otherwise not.' This gives rise to contingent compensation, incentive pay, commissions, bonuses, etc. Why should the salesman share the risk any more than any other member of industry?"

"I think management must realize that there's a selling job to be done and shoulder the responsibility of paying to have it done—not put the whole thing on a contingent basis."

When you put him on contingent pay, you have less control of your salesman, this consultant points out. You can't tell the salesman to stop taking orders and develop long-range business if the business development doesn't pay him.

Contingent pay is all right, this man admits, if you are willing to set up a scale so you pay the salesman for what you want done. If you want him to do a lot of development work for next year, you should be willing to pay him for it. He offers this formula:

1. Figure out what you want your salesman to do.
2. Then, through the proper form of compensation, make him want to do it.

But however things may be improved for the men within the profession, its leaders agree that, if they're going to get the men they need for the long pull, they're going to have to sell the public on selling.

"Among other things," says Robert Whitney, president of N.S.E., "we've got to get a lot of selling and marketing courses in the schools. After the war, we found very few courses on the high school and undergraduate level. Since then, we've helped to establish 265 courses in colleges and universities. But we've got a long way to go, especially on the high school level."

"We've got to build up the sales profession and get away from the idea that selling is something to be ashamed of," says Mr. Hoffman. "We've got to make selling attractive as a career so as to attract the better brains and not have them go to other fields."

DRAWINGS BY PAUL HOFFMASTER



*Management buys plants and tools,
asks salesmen to share the risk*

He thinks marketing courses should be given in the schools—especially on the high school level—not only for prospective salesmen but for the public in general.

"This is the only country that has a broad, general market and few people really understand how it works. It is important for the future of the country that its people understand the distribution process that spells prosperity for us all."

Others, too, urge a more popular appreciation of the problem. One of them is Al Seares.

He says: "The future of America rests with the ability of our distribution system to move the end products of our growing manufacturing facilities in sufficient volume to maintain full employment." **END**



REPRINTS AVAILABLE

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SOUVENIRS for passengers are conch shells mounted on star fish. Stewardess prepares some

OVERSEAS AIRLINE

(Continued from page 39)

wicker pieces imported at a bargain from Haiti. The Fort Lauderdale airport used to be a Naval air station and the company uses the same two-story, wooden building, now painted cream and green. Company headquarters was once the office of the station's commanding officer and the company terminal across the street was once the air station's operations building.

The airline is a small but proud operation. President Joe Mackey is as independent as the proverbial pig on ice. He doesn't have a federal air mail contract, and he doesn't want one. He prefers to be self-supporting. And, as of now, Mackey Airlines is doing very well. The company flew 15,000 passengers in 1953, and 22,000 last year. Mr. Mackey predicts more than 30,000 this year.

The company has four Douglas DC-3's and a Grumman Goose which flies fishermen to the islands on charter runs. Besides the four trips a day to Nassau, the DC-3's fly to Puerto Rico on a contract basis. They also bring about 4,000 transient Bahamian laborers to Florida every year to raise vegetables which the Florida Fruit and Vegetable Company ships to the New York market.

The Civil Aeronautics Board has approved an extension to Tampa and St. Petersburg. An application

is pending to extend the route to Havana and make Mackey Airlines a triangle—Florida, Cuba and the Bahamas.

The airline was established on the basis of market research done by Joe Mackey. In the latter stages of the war, he became convinced that the Caribbean offered great opportunity for air transportation. It took seven hard years, but the Mackey operation finally succeeded.

The company first started operations in 1946 with three war-surplus airplanes. But flying was stopped when government regulations forbade the scheduling of regular flights by non-scheduled operators. Mr. Mackey then applied for CAB certification as a scheduled airline. Years of delay followed. Opposition developed from other airlines which also wanted the route. Flying back and forth to Washington for conferences, Mr. Mackey dipped heavily into his personal funds. In 1950 his application was turned down. But he appealed and finally gained certification as a scheduled airline in 1952. After complying with additional regulations, which caused some further delay, everything was finally ready and the airline started operating in January, 1953.

Mr. Mackey spends much of his time in Washington on business. Airline operations are handled by his executive vice president, Len Povey.

As mechanic and pilot, 50-year-old Len Povey has been around airplanes for 35 years. At 15, he enlisted for pilot training in the Royal Air Force. He was promptly told to go home because of age. He re-enlisted as a mechanic, later shifted to the U. S. Army Air Service where he learned to fly after getting special permission from Billy Mitchell himself. In 1931 Mr. Povey joined a group of barnstorming pilots known as the American Air Aces. The group included such celebrities as Wiley Post and Clyde Pangborne. This launched him on a hair-raising career as an aerobatics champion in which he grabbed off top trophies in air shows all over the United States.

He picked off his first big cup at the Miami Air Show in 1933. Later he went to Cuba where Fulgencio Batista had just become dictator. Young Povey became director of the Cuban Air Force—which had 22 planes but no pilots. It was his job to train new pilots and build up the air organization.

Each day, however, brought a variety of adventures. One day would see him flying Batista on some expedition. On another he would be putting on an air show, or perhaps annoying rebels with a few hand bombs.

The Cubans had never seen sky writing. So Mr. Povey wrote to his friend, Joe Mackey, at that time conducting a big sky-writing business, and found out how to do it. He put on a show on the anniversary of the revolution and spelled out "Viva Batista para Cuba."

At that, the natives affectionately dubbed him "El Americano muy loco"—the very crazy American.

Batista called him "El Fenomeno." The dictator was proud. He sent his chief airman to many U. S. air shows. The American took back many of the top trophies of the day.

Mr. Povey went to Cuba with the idea of staying for 30 days. He remained four years, during which time he kept busy training aviators until he finally had 42 qualified pilots, 27 airplanes and 420 enlisted men in his air force. Then he resigned.

Back in this country he helped set up civilian pilot training schools. In World War II he was vice president in charge of operations for the Embrey-Riddle Company, which trained 19,000 British and American pilots. Later he joined the Fairchild Engine and Aircraft Corporation and became assistant to the president in charge of customer relations. He left to go with the Mackey operation in January, 1953.

Povey and Mackey are betting on an expansion in the Bahamas which they think may be as big as the real estate and tourist booms in Florida. Much of it has already started. Visitors have tripled since 1949 and summer trade has leaped 451 per cent. The Bahamas Development Board is spending \$1,000,000 for promotion in the United States; Mackey is in their ads and the customers are beginning to pour in.

However, Mr. Mackey cautions his stockholders against becoming boom-crazy. "It has been established that we are operating in an extremely fast-growing area," he says. "There is an undeniable need for our service and our basic plan of operation is sound."

"However, it is extremely important that we move into expansion with care. We are in a position to handle from four to five times our present route mileage with little or no addition in administrative and maintenance expenses."

Mr. Mackey hopes to get the Havana extension soon. Further than this, he doesn't want to go—right now, at any rate. He doesn't want to be a big operator. He just wants to settle down and enjoy that little dream of an airline of his own that he and his people had when they were in the service.

—PHILIP GUSTAFSON

► Research shortage threatens U.S. future

Survey shows how lack of scientists and engineers cripples development activities in vital industries

SHORTAGES of scientists and engineers are impeding a large and critically important segment of the nation's scientific research effort.

Interviews with officials of 200 companies conducted by the U. S. Department of Labor's Bureau of Labor Statistics for the National Science Foundation show that at least half these companies have shortages of researchers. In about two thirds of these the shortage is serious. Companies which do not have numerical shortages emphasize their need for people with better qualifications.

The types of personnel needed cover a wide range of fields—chemical, electrical, mechanical and aeronautical engineering, chemistry, physics, metallurgy, mathematics, and a number of others.

The demand also extends to all levels of experience and training, although most company officials say they have a greater need for personnel with experience or advanced degrees than for new graduates.

Largest shortages of research specialists are in the aircraft, electrical equipment, petroleum, paper, food, and primary metals industries.

Every aircraft company questioned indicates a shortage of research personnel. (This news is especially sobering—in view of Russia's recent strides in aircraft development.)

The survey on which these findings are based is part of a comprehensive study of research and development resources undertaken by the National Science Foundation to provide the information needed in developing and recommending to the President policies to strengthen the country's research effort.

In addition, the Foundation is conducting or sponsoring coordinated studies of the research activities of colleges and universities, trade associations, commercial laboratories, nonprofit institutions, and government agencies.

The survey of industrial research has two phases—an extensive survey of a sample of about 11,600 companies carefully chosen to be representative of all nonagricultural industries, and intensive interviews with officials of approximately 200 of the largest of these companies.

The findings of the questionnaire survey will provide detailed information on the volume of research expenditures, research manpower, and related topics, for each major industry.

The 200 companies supplying information represent, in general, the largest firms in industries with significant research and development programs.

Together, these companies employ a substantial proportion of all scientists and engineers engaged in industrial research. However, the findings apply only to big companies.

Information supplied by company officials applies to research and development personnel only. It does not cover the personnel situation in other types of scientific and engineering work—such as production, sales, or exploration activities—which together employ a much larger number of scientists and engineers.

Approximately one third of the companies interviewed report major numerical shortages of research scientists and engineers. About another sixth report less serious shortages.

Among the firms which say they do not have numerical shortages are many which emphasize their need for scientists and engineers with more advanced training or better professional qualifications. Officials of several of these firms say they would be willing to expand their research and development activities if well qualified or better trained persons could be found.

While the aircraft companies report the greatest difficulty in obtaining needed scientists and engineers, a number of companies in other industries mention that, in terms of salary levels, they are unable to compete for technical personnel with the aircraft industry.

In the electrical equipment industry, three fifths of the companies report that shortages of scientists and engineers are impeding their research and development programs. Several manufacturers of electronic equipment stress that their shortages of research engineers and scientists are extremely acute. One of these companies has been able to fill only half the budgeted positions for its current research program.

Another company—a large one, though not a giant—reports that it would have increased its professional research and development staff by 50 per cent in 1954 had qualified personnel been available.

Companies with insufficient numbers of research specialists likewise represent about three fifths of those interviewed in the petroleum, paper, and food industries.

A leading petroleum company states that lack of technical personnel, particularly scientists with advanced degrees or with five to ten years of industrial experience, is a serious problem in its research and development organization. Similarly, the director of research of a major food company says that the firm's research programs are markedly affected by personnel shortages.

In the primary metals industries also, a majority of the companies say they do not have sufficient numbers of research scientists and engineers. One corporation indicates a major lack of research personnel.

An official of one of the companies with less extensive shortages says: "In general, manpower shortage has not been a major obstacle in the expansion of our research and development program. We are, however, having difficulty obtaining qualified research men."

Among professional and scientific instruments companies approximately half report shortages either hindering research activities or expansion. Several others emphasize their

need for better-qualified personnel or for personnel with specific training.

Approximately half the companies in the chemicals and allied products industries report shortages of scientists and engineers, though only one fifth of them say that such shortages are significantly impeding or retarding their research and development programs. Officials of most of the largest chemical manufacturers indicate that their current research activities are not affected by a lack of scientists and engineers. They stress, however, that they have been forced to undertake intense recruitment programs and that competition for the best-qualified personnel is strong.

In the machinery industry, nine out of 21 companies indicate a need for additional research engineers and scientists, saying in most cases that the scarcity is impeding their research activities. At one leading machinery company, out of 250 candidates for employment recently interviewed, the company was able to hire only three or four with the required technical and professional qualifications. In contrast, the president of another firm in the same industry says that, since the company is well known and has a fine recruiting system, it has no manpower shortages.

In the rubber industry several companies report that they are unable to obtain qualified research and development personnel. One leading manufacturer, rapidly expanding his research activities, says he has been unable to staff his organization at the rate desired.

Only a few firms in the fabricated metal products industry report difficulty in obtaining qualified people to fill budgeted vacancies in their research programs, although one major concern indicates that many applicants fail to meet its hiring standards.

Of the eight companies interviewed in the motor vehicle and equipment industry, only one reports difficulties in recruiting engineering personnel. Most of the others express the belief that their good reputations and well organized personnel programs are responsible for their success in obtaining sufficient numbers of scientists and engineers for research and development activities.

In other industries, the numbers of firms interviewed were too small, either in absolute terms or relative to the total number of companies in the industry to warrant separate analysis. The personnel situation reported by these companies is extremely diverse—ranging from a major shortage to an adequate supply

of research scientists and engineers.

Engineering fields in which sizable numbers of companies report personnel shortages include chemical, electrical (especially electronic), mechanical and aeronautical engineering.

Some companies have an acute need for engineers with advanced degrees or considerable experience including knowledge of hydraulics, stress analysis, systems analysis, ceramics, and engineering physics.

The scientific fields in which many companies report personnel shortages include chemistry, physics, metallurgy, and mathematics. In addition, some companies say they need additional pharmacists and pharmacologists, pathologists, microscopists, and geophysicists.

Physical and organic chemists with a Ph.D. degree are in great demand, as are men at all degree levels with two to ten years' experience. A number of companies, chiefly in the food industries, report a shortage of biochemists.

Physicists, especially those with a Ph.D. degree or equivalent experience, are needed in the electrical equipment, aircraft, and professional and scientific instrument industries among others.

Metallurgists at all degree levels are needed in the primary metals and electrical equipment industries. A few firms in the aircraft and fabricated metal products industries also report a shortage of this type of scientist.

Mathematicians at all degree levels are needed in the aircraft industry. Slightly more than a third of the companies report a scarcity of personnel qualified for positions as project or group leaders for research and development activities.

Companies indicating difficulty in obtaining qualified personnel for positions of leadership are concentrated, to a considerable extent, in the industries where shortages of research personnel are most generally reported. Thus, aircraft manufacturers are virtually unanimous in reporting insufficient qualified supervisory personnel for their research and development programs. Many say the scarcity of such personnel is a critical problem. A considerable number of companies in the electrical equipment, professional and scientific instrument, machinery, and paper industries also indicate that they have not been able to find sufficient qualified scientists and engineers to serve as project leaders.

Several firms say shortage of leaders has forced them to slow down their research activities or to bring projects to a complete standstill. **END**



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A helping hand to local chambers

THE NATIONAL CHAMBER works closely with the local chambers of commerce throughout the country to help them grow in usefulness and effectiveness.

In fact, the National Chamber has one Department—the Chamber of Commerce Service Department—which is established solely to lend a helping hand to local chambers.



AFFILIATED WITH THE NATIONAL CHAMBER ARE MORE THAN 3,100 BUSINESS ORGANIZATIONS—LOCAL AND STATE CHAMBERS OF COMMERCE, AND TRADE AND PROFESSIONAL ASSOCIATIONS



One of the ways in which the Department serves local chambers—and which they appreciate—is by conducting Local Chamber Leaders' Workshops. This is the procedure:

- 1.** The Chamber of Commerce Service Department selects a city in which there is a successful local chamber that is doing a good job, but that wants to do a better job and is looking for advice and suggestions.
- 2.** In cooperation with this local chamber, the Department sets up an all-day Workshop—and sends a team of experts from Washington.
- 3.** To this Workshop are invited, not only the business leaders and chamber people in the city in which the Workshop is held, but also business leaders and chamber people from nearby cities.

THEN the Workshop goes to work. The experts survey the situation, identify community problems. The discussion is thrown open to all.

Ideas and views are exchanged—and answers found to questions having to do with such things as chamber financing, community betterment, industrial development, public relations, programming, projects, and leadership. In recent months, the Chamber of Commerce Service Department of the National Chamber has conducted 29 of these Workshops—and through them has given specific help to 1,084 local chambers.



Attendance has totaled more than 6,000 men and women from 42 states—chamber of commerce officers, directors, committee chairmen, committee personnel, and staff members.

More Local Chamber Leaders' Workshops are being planned for the months ahead.

THIS represents but one phase of the National Chamber's work for the good of business, and in the public interest. For the full story, briefly told, write for a free copy of our 64-page, illustrated progress report, "For the Greater Good of All."



This picture was taken at the opening session of the Local Chamber Leaders' Workshop in Tampa, Florida. Dwight Havens, manager of the Chamber of Commerce Service Department of the National Chamber, is getting the members of the audience to define their community problems of first-rank importance—and the problems are being listed on the blackboard for discussion. In recent months, the National Chamber has conducted 29 of these Leaders' Workshops and through them has given face-to-face help to 1,084 local chambers of commerce.

CHAMBER OF COMMERCE OF THE UNITED STATES

Washington 6, D. C.

A NATIONAL FEDERATION WORKING FOR
GOOD CITIZENSHIP, GOOD GOVERNMENT
AND GOOD BUSINESS

The Aims of Business and the Work of the National Chamber

1. Improve Living Standards —
Expand production, develop new markets, provide more jobs, and keep the economy dynamic.

2. National Security —
Encourage an enlightened foreign policy, expand world trade, and strengthen all phases of national security.

3. Community Development —
Build better cities and communities.

4. Economy and Taxes —
Promote government economy, and devise a better tax system.

5. Labor Relations —
Create greater harmony between labor and management, America's productive team.

6. Education —
Raise the educational levels of youth and adults, and also build a better public understanding of the American economic system.

7. Organization Work —
Make increasingly more effective America's business organizations which are federated and working together for good citizenship, good government and good business.



Clarity is important to us as writers. The twin of clarity is force.

Force gives strength and vigor to writing.

Force brings life to writing.

Force creates movement. It makes things happen.

Force impels people to do things. The secret of force, as with clarity, lies in the structure of the sentence. Any sentence which answers the question who does what or who did what is a forceful sentence. Conversely, any sentence which does not answer this question is a weak sentence.

In each example the clue to the weak sentence is the word "by." ▼

Who does what is the secret of force in writing. One idea at a time is the secret of clarity. Together they provide us as writers with a pair of valuable tools to be used in conjunction with the four principles of effective writing.

Our effort to improve our letters must be a continuing one. It is no simple task. To write well demands diligence and patience, and a constantly renewed application of the principles and techniques of effective communication. In an age when so many are competing for attention and understanding, it is vitally important. For we know that within its own age an institution endures and prospers largely because it is able to communicate with the people of its own time. **END**

The committee approved the report.

The report was approved **by** the committee.

Please sign the enclosed form.

The enclosed form is to be signed **by** you.

We mailed your check this morning.

Your check was mailed this morning **by** us.

Say good-by to these:

acknowledge receipt of
acknowledge with pleasure
advise (meaning to tell) and oblige
answering yours of
anticipating your favor
as captioned above
as per
as regards
as stated above
assuring you of
as to your favor
at an early date
at hand
at the present writing
attached hereto
attached herewith
attached please find
awaiting your reply
beg to acknowledge
beg to advise
carefully noted
check to cover
complying with your favor of
concerning yours of
contents noted
deem

desire to state
due to the fact
duly noted
esteemed favor
even date
for your files
for your information
hand you herewith
has come to hand
have your kind favor
hereby advise
herewith enclose
hoping for your favor
I have your letter of
in answer to same
in conclusion would state
in connection therewith
in due course
in re
in reference to
in receipt of
in the amount of
inclosed find
instant (inst.)
kind favor
kindly confirm same

of above date
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please be advised
pleasure of a reply
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recent date
referring to yours of
regarding the matter
regret to advise
said (the said regulation)
same (regarding same)
take pleasure in
take the liberty of
thanking you in anticipation
the writer
ultimo
under separate cover
up to this writing
we remain (ending last sentence)
we trust
with reference to
would advise
your favor has come to hand
yours with regard to above

BUSINESSMEN SAY

(Continued from page 6)

Debt" includes a statement that the state of Wisconsin has the lowest state per capita debt—\$1.53.

Does Wisconsin take any federal aid? Indiana's per capita debt is not this low, but the state refuses federal aid.

F. W. MOUNTAIN,
Aetna Insurance Co.,
Park Ridge, Ill.

NOTE: Indiana does accept federal aid; so does Wisconsin and every other state. Federal aid payments in fiscal year 1954 to Indiana totaled \$48,901,342; to Wisconsin, \$57,430,832.

The coming boom

I was much interested in the article in your May issue entitled "The Coming Boom—Preview of 1960." Will you please let me know whether reprints are available, and if so, the charge for 100 copies?

E. J. KLOCK,
General Electric Company
Schenectady, N. Y.

NOTE: No reprints available. Permission to reprint should be sought from Thomas Carskadon, The Twentieth Century Fund, 330 W. 42d Street, New York 36, N. Y.

Some bird

We enjoyed reading your article "\$2,000,000,000 Bird" which appeared in the June issue. May we have permission to reprint it in the *Executive Review*, a new house organ distributed by a few Chicago firms to approximately 2,500 businessmen?

HAROLD SABES
Executive Review
Chicago, Ill.

NOTE: Permission granted.

Fact from survey

Will you please give us the source of the following statement from page 9 of the June Issue in Management's Washington Letter: "92 per cent of autos are used for transportation to and from work, or for shopping"?

ANDREW M. HOWE
Wm. Wrigley Jr., Co.
Chicago, Ill.

NOTE: From a General Motors survey of driving habits.

You can *see*
feel

why so many
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MORE ALUMINUM

(continued from page 57)

plunge down to the powerhouse inside Mount DuBose at an angle of 48 degrees. Through these small tunnels, or penstocks, water drops 2,500 feet.

In a huge cavern, blasted from solid granite a quarter of a mile in from the base of Mount DuBose, are the world's most powerful impulse turbine generators—the largest ever made.

Twelve feet in diameter, they are chromium-steel forgings designed for 150,000 horsepower at 327 revolutions per minute. They cost \$80,000 each. The water cascading through the penstocks is forced through jet valves into the turbine, which rotates a drive shaft of solid forged steel one yard thick. The drive shaft connects with the generator rotor which feeds directly into a bank of single-phase transformers. A 300,000 volt, four-inch-thick oil-filled power cable, with 60 pounds per square inch oil pressure, carries the output of the transformers over 2,000 feet to the surface switch yard. Then from the switch yard, the electricity starts its 50-mile trek to Kitimat.

E. W. McKernan, works manager, says the life of the turbine blades "should be about five to ten years."

"We haven't had experience enough yet to be sure," he adds, "but that's about what they were designed for. The drive shaft should last forever."

Mr. McKernan explained that a grating at the dam had been installed to keep fish from getting into the penstocks. "If some small ones get by, you can be sure they won't foul up the works. By the time they get to the jet valves there wouldn't be enough left of them to filter out."

Alcan put its powerhouse inside a mountain for five principal reasons: It is free from enemy air action; it provides more economic foundations for massive power equipment (the generators alone weigh 440 tons each); excavation techniques for underground construction have improved, thus lowering costs; penstocks exposed on a mountain side would be treacherous in winter and subject to landslides; tonnage of steel and concrete is considerably reduced by making use of the natural granite.

Mr. McKernan says there are 75

hydraulic underground power plants in the world operating in all climates. To build the powerhouse, an access tunnel 27 feet wide and 31 feet high was driven to explore rock conditions and gain initial access to the upper part of the powerhouse site. A third tunnel was driven to carry out the high voltage cables.

The generating station itself is in a chamber 712 feet long, 81 feet wide and 134 feet high, blasted from solid rock. It can hold eight generating units at present and is gradually being extended an additional 400 feet to accommodate 16. When all phases of Alcan's project are complete, Kemano will be the largest single source of hydroelectric power in the world.

The huge cavern which houses the gleaming new generators also contains a modern five-story office building complete with glass and

transmission line winds high over Kildala Pass to Kitimat. Helicopters played a major role in building the line over rugged, snowy terrain. Towers were fabricated, tested, then broken down into sections small enough to be carried by the whirlybirds. The 'copters set down parts of towers as they went along and crews of men from several campsites along the way put them together while the airlift continued. Chiefly responsible for the part played by helicopters was Carl Agaar, head of Okanagan Helicopters, Ltd., once a small crop dusting outfit and now the largest helicopter service on the North American continent.

The transmission system consists of two double-circuit tower lines climbing 1,000 feet in the first ten miles to a switching station. Steel towers carry the lines over the 50-mile route, with a series of aluminum

towers adjacent and running parallel in the section across Kildala Pass. The first nine miles out of Kemano are easy going, being the floor of the Kemano Valley. It was also possible to build a road 31 miles long from Kitimat to a point on the upper Kildala River. The ten miles up and over Kildala Pass was the tough job—and that's where the 'copters were most effective.

Kemano eventually will become an even smaller community than it is at present, because automatic devices will operate the power plant. Maintenance workers, watchmen and clerical help to keep tab on power production will then be the extent of the town's population.

Kemano now has a recreation hall where the latest movies are shown and where workmen on the power project can relax, play cards, or listen to the juke box. It also has a grocery store

where most of the basic necessities can be purchased; a post office which sends out mail twice a week; a grade school; a small interdenominational church, the interior of which was handmade by Rudolph Levko, a refugee Hungarian cabinet maker and prize winner for his work in Toronto exhibits; and a weekly newspaper, the *Kemano Valley Echo*, edited (and largely written) by Mrs. Rufus Rumpfolt.

Kitimat—the production end of this spectacular adventure in the wilderness—is a different story. It is a carefully planned community consisting of 500 new homes at pres-



aluminum doors and fixtures, an automatically controlled elevator, and up-to-date offices with the latest equipment. This building also houses the control room for the power plant, where banks of electronic devices resting on a four inch thick foam rubber floor keep a watchful eye on every phase of the operation.

This vast and complex power plant can be—and is—operated by one man.

Mr. McKernan hopes that some day soon, when all the bugs have been eliminated, the operation can be left without human supervision.

From the surface switch yard the

ent, with another 500 under way and expected to be finished this fall. Also included in this year's construction program is a high school, two large stores and a railway station for the new rail spur to Terrace, B. C., 42 miles to the north, which connects with the transcontinental lines of Canadian National Railways. By the end of 1959, when the current expansion program is completed, the population of Kitimat, now 5,000, is expected to be more than 20,000. For the second phase of the program, sometime in the '60's, additional acreage has been provided so that Kitimat can eventually attain a population of 250,000. It also has its own chamber of commerce.

Alcan's policy in establishing Kitimat prevents it from becoming a company town, entirely dependent on the production of aluminum. The company is seeking to attract new industries to the area, and a dairy products plant, a cement block plant and a liquid gas manufacturer, as well as more than 100 small business firms, already are establishing themselves.

The town also boasts a rod and gun club on the banks of the Kitimat River where 40 and 50 pound Tyee salmon are common and where a sign proclaims that trout under five pounds must be thrown back "because we want to give the little ones a chance to grow." Curling is a popular sport and the Kitimat Curling Club expects to start tournaments this winter.

Aluminium, Ltd., and the Powell River Company, a large newsprint producer, are currently studying the feasibility of a pulp and paper mill at Kitimat, as well as a large chlorine plant to serve the paper industry.

McNeely DuBose, Alcan vice president in charge of the entire British Columbia project, points out the enormous hydroelectric potential of Canada's Coastal Range, and says:

"We'll provide all the power any industry needs in this area—if we just have some advance notice so we can tap it."

The Kitimat-Kemano project is a saga of pioneers in modern dress—and with modern machinery and instruments—but with spirit kindred to the pioneers who built the American West. The Canadian West is coming rapidly into its own and enthusiastic industrialists are already referring to the Fraser River as the St. Lawrence of the West.

Persistent courage and dramatic accomplishment—and eyes bright with plans for the future—are the hallmarks of the pioneers of Kitimat and Kemano. **END**

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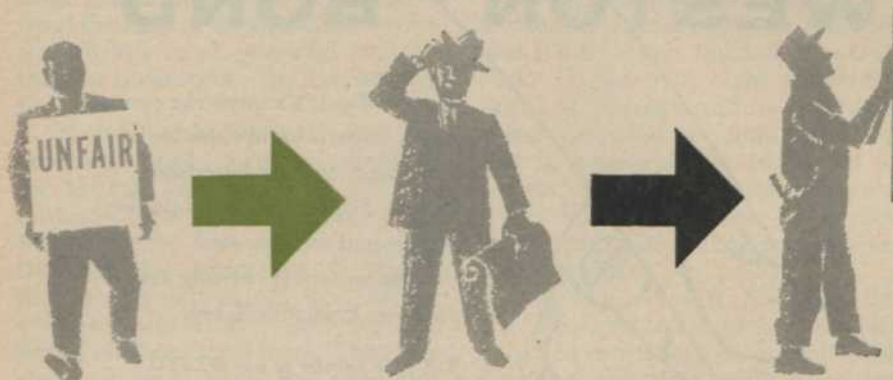
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UNIONS TEST NEW ORGANIZING TACTIC



Baltimore is first target as AFL puts pressure on employers to force construction workers into union. Strategy will spread if method holds up in court

A NEW way to by-pass the Taft-Hartley labor law and force construction workers to join unions is being tested in Baltimore by the American Federation of Labor building trades unions.

If successful, the new technique—patterned after the hot cargo tactics of the Teamsters Union—will be attempted in other parts of the country as the AFL tries to organize nonunion construction work. It could easily spread to other industries as well.

At stake are the right of building tradesmen to work without being forced into a union, the right of construction contractors to do business with other contractors irrespective of unionization, and the cost of home, road, commercial and other construction.

New construction expenditures this year are expected to hit a record \$41,800,000,000. The biggest dollar gain is in private home building, which is the major—but not the only—target of union organizing campaigns against contractors in Baltimore, Washington, Flint, Grand Rapids, Cincinnati, Syracuse, Erie, and many smaller cities, especially in the South, where most home construction is nonunion. Nationwide, about 40 per cent of home building and 20 to 25 per cent of commercial construction are estimated to be nonunion.

The new building trades strategy

is designed to circumvent the secondary boycott section of the Taft-Hartley law. This part of the act, among other things, makes it unlawful for a union to induce workers to refuse to work, or refuse to handle goods, in an effort to force their employer not to do business with another employer.

AFL unions turned to new tactics in Baltimore after the U. S. Supreme Court, in a decision against the Denver AFL Building Trades Council, held that it is an unlawful secondary boycott when a construction project is picketed as "unfair"—and men are kept from working—because some of the work is being performed by nonunion employees of a subcontractor.

As a first step the unions picketed a building project with signs stating that the picketing was only for the purpose of organizing nonunion workers.

They made no suggestion that union workers should not cross the picket line.

However, employees of a union subcontractor, Stover Steel Service, refused to cross. The company filed secondary boycott charges against AFL Iron Workers Local 16 and the Baltimore AFL Building and Construction Trades Council. The National Labor Relations Board dismissed the charges on the ground that, since the picketing was strictly for the purpose of signing up new

members, there was no secondary boycott violation.

Stover Steel appealed to the U. S. Circuit Court of Appeals which reversed the Labor Board finding and held that the unions did engage in an illegal secondary boycott because the subcontractors whose members refused to work "became the chief victims of a dispute which they were powerless to resolve."

Now the Baltimore unions are testing the technique employed by the Teamsters' Union in the trucking industry hot cargo agreements. They are asking general contractors to sign contracts stating that they will not let work out to nonunion subcontractors, and union subcontractors to agree not to accept jobs from nonunion general contractors. The contractors would agree, further, not to do business with any contractor who does not sign a similar agreement.

This tactic, if successful, would force all contractors who wanted to do business in Baltimore to hire only AFL building trades union members or force their nonunion employees to join the unions—assuming that the unions will take them in. Many of the unions have restrictions on membership and impose high initiation fees and dues. Some of them fine workers who violate orders of union officials.

When Selby, Battersby & Co., tile and terrazzo subcontractors, employing union workers, refused to sign the proposed agreement, the union threatened members with loss of their cards if they continued to work for the company. A six week strike tied up five jobs on which the company was working.

Practically all home building and an estimated 65 per cent of heavy and commercial construction (the AFL believes it is as high as 75 per cent) is nonunion in Baltimore. Selby, Battersby itself does 60 per cent of its business with nonunion general contractors—business it would lose if it signed the agreement the AFL organizations demand.

The Associated Builders and Contractors of Maryland joined with Selby, Battersby in filing secondary boycott charges against the Baltimore AFL building trades organization, the AFL Bricklayers Union and various local affiliates representing tile and terrazzo employees.

NLRB General Counsel Theophil C. Kammholz requested a court injunction to end the secondary boycott pressure against Selby, Battersby. On the day of the injunction hearing, however, the labor organizations agreed to let the men go back to work while the Board considered

whether the unions' actions are in fact a secondary boycott. The question is still pending.

Some other contractor associations see a bigger question raised. That is whether the agreement might violate the antitrust laws as a conspiracy in restraint of trade.

One association asked its members: "Is it safe to sign such an agreement?"

Win or lose in their direct action tactics to make construction projects 100 per cent union, the building trades unions—with the strongest and oldest organizations in the labor movement—will continue their fight to get Taft-Hartley amended to facilitate their objective.

About 1,500 building trades unions leaders from all over the country attended the recent First National Legislative Conference of the AFL Building and Construction Trades Department in Washington. It lasted for three days and included calls on many senators and congressmen in support of pending legislation which would legalize the picketing and re-

fusal to work on a construction site with nonunion workers—legalize what has been declared illegal in the Denver building trades and Stover Steel Service disputes.

Building trades leaders feel Congress will pass legislation which will help their organizing difficulties if it ever gets around to amending the Taft-Hartley law. They cite President Eisenhower's recommendation last year that the law be "clarified by making it explicit that concerted action against . . . an employer on a construction project who, together with other employers, is engaged in work on the site of the project, will not be treated as a secondary boycott."

A bill to this effect was approved by the Senate Labor Committee last year and a similar bill is pending in this Congress. The House Labor Committee also approved a bill last year easing the secondary boycott prohibition as applied to construction sites, but it kept the ban on any secondary activity for organizational or union recognition purposes. **END**

SECONDARY BOYCOTT

A secondary boycott is a union tactic against a neutral employer. The union uses pressure to force the neutral to stop doing business with another employer with whom the union has a dispute. For example, in one actual case, a union had a dispute with a shower curtain manufacturer. The union then asked a department store to stop selling the curtain. The store refused, so the union picketed the store as unfair. The result was a substantial loss of business for the store—despite the fact that the store had no connection with the original dispute.

Congress intended the Taft-Hartley Act to outlaw secondary boycotts. But there are loopholes.

One loophole is that the law as interpreted permits pickets to follow the product from the place of manufacture to the place where it is sold.

Another loophole is that the law specifically prohibits pressure on employees but makes no mention of pressure on employers.

Preventing secondary boycotts would not and could not break a union. The union has a strike remedy against the employer with whom there is a dispute. Also, the Taft-Hartley Act prevents unfair practices by employers.

Most effective form of relief available is the injunction against a secondary boycott.

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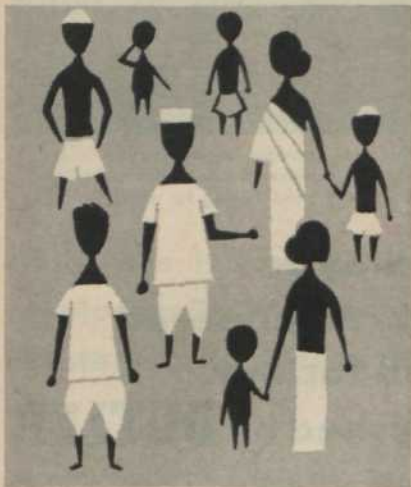
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Science lowers death rate, brings population surge in countries that are now overcrowded, thus causing



Strain on food supplies and other resources. Without economic growth, eventual result is most likely to be

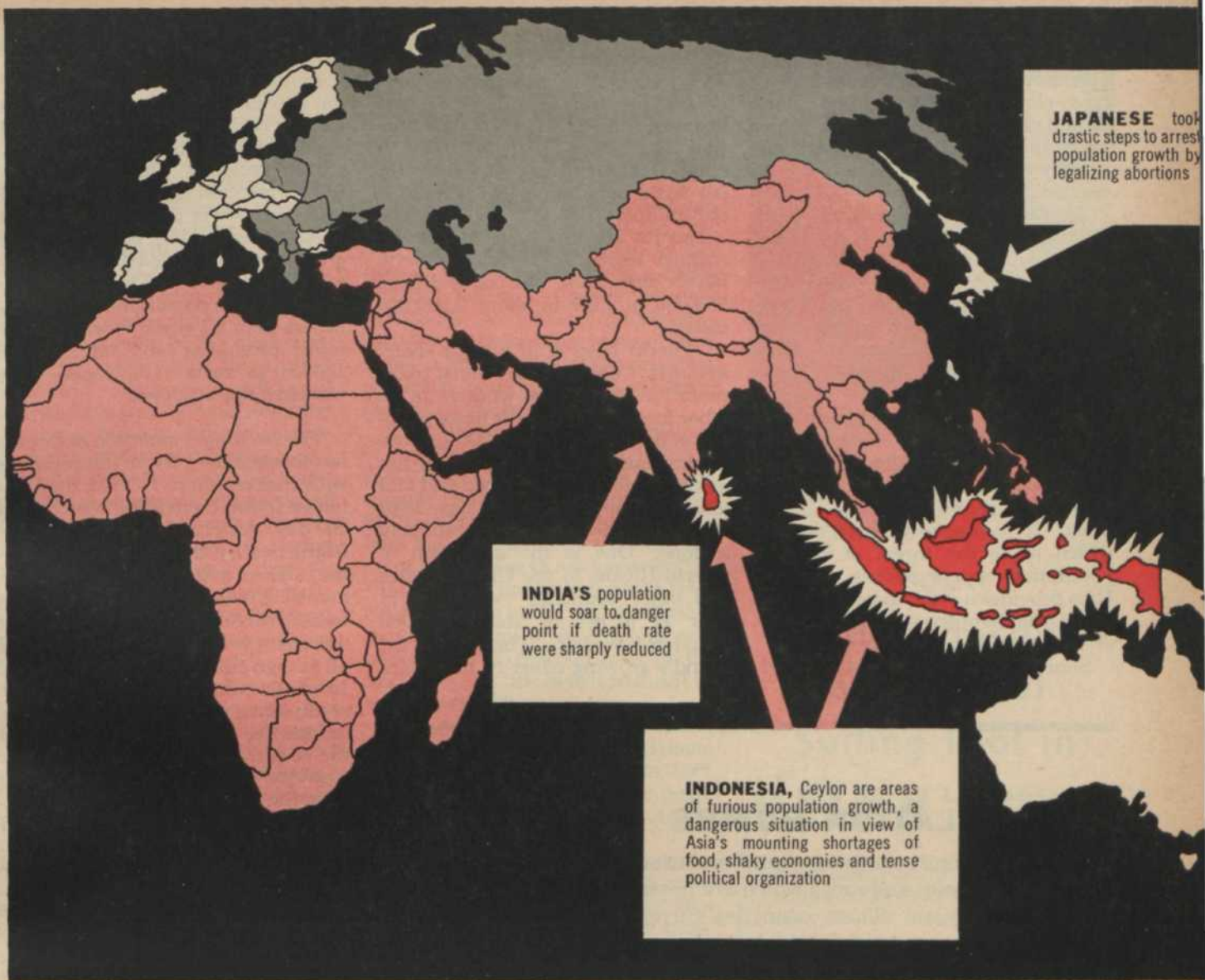


Frustration leading to upheavals that could be as destructive to industrial society as a nuclear war



Explosive growth of populations in crowded lands of Asia,

Freedom's new danger: **TOO MANY PEOPLE**



Africa, the Middle East and Latin America may produce results disastrous to all the nations of the world

POPULATION growth is emerging as a grave threat to the world's political and economic stability.

This warning is sounded by the Population Reference Bureau, Inc., a research organization of Washington, which says that runaway increases in the populations of a number of already teeming countries could:

1. Dangerously overtax food supplies which are already inadequate.
2. Disrupt world markets.
3. Imperil sources of raw materials vital to U. S. industry and defense production.
4. Drive into communism the frustrated peoples of nations struggling to industrialize.

Although the problem is most acute in Asia, home of more than half the human race (1,300,000,000 people), it exists, too, in other

places, among them Puerto Rico, Mexico, Guatemala, Brazil.

Paradoxically, it is in the areas where levels of living are lowest and the hazards of existence greatest that the potentials for population increase are most pronounced. In these areas the traditional pattern of human existence—a high birth rate and a high death rate—has been little changed by the discoveries in medicine and public health which have altered the patterns of survival and later of birth in western countries. But the possibility of reducing death rates among these populations has already been demonstrated. If their death rates suddenly drop and birth rates remain high, the result will be a dramatic surge in the rate of population growth.

According to Robert C. Cook, director of the Population Reference Bureau, overpopulation could, in the long run, be as destructive to mod-

ern industrial society as nuclear war. Yet, little attention has been devoted to its dangers. A brief review of a few vital statistics shows the scope of the problem.

In 1650 humans numbered approximately 500,000,000. By 1950 that figure had reached 2,450,000,000. Adding people at the rate of about 90,000 a day, the planet's population has reached its present level of 2,550,000,000. Projections by the United Nations and others indicate that the world will have about 4,000,000,000 inhabitants by 1980, with the yearly rate of growth continuously accelerating.

Whether the world's food, mineral and other resources will be equal to the increasingly heavy demands which steady population increases will bring is the question. According to one view, the ultimate result of growing world population can only be misery, poverty and eventual de-

struction of mankind. Others believe improvements in science, especially chemistry, will enable the world to feed, clothe, employ and accommodate its human burden. Both groups agree that an early facing-up to the gravity of the long-range problem is needed.

In a country such as ours—with still untapped resources and a highly developed industrial economy—population rises can and do serve as a powerful economic stimulus. Thus, American businessmen are counting on steady population growth as a source of expanded domestic markets tomorrow.

But in countries where resources are limited, the economy underdeveloped, the population already dense and food supplies short, rapid population growth is a bane, not a boon. It is precisely these factors which make the threat of sudden population spurts serious. Puerto Rico provides a close-to-home example of what happens when a crowded area slashes its mortality rate.

Sanitation measures and medical

know-how have steadily forced down the Puerto Rican death rate since 1899, when the United States took control of the island. The rate dropped from 31.4 per 1,000 population in 1899 to 9.9 in 1950. It reached a record low of 7.5 deaths per 1,000 population in 1954 and is still falling.

But the island's birth rate has remained high. As a result, Puerto Rico's population has boomed from 953,000 in 1899 to about 2,200,000 today.

"Puerto Rico is in a tight spot," says Mr. Cook. "It now must make room for 20,000 new workers in its labor force each year. It has a population density of almost 700 persons to the square mile. The island has more people than it can feed and find jobs for. Only two things have kept Puerto Rico from coming completely undone. One is the migration of Puerto Ricans to the United States and other countries (since World War II a net of about 400,000 islanders have left). The other is the island's growing effort to lure more

job-providing industries by offering generous tax exemptions."

In Asia, the island republic of Ceylon now finds itself in similar straits. Ceylon began its attack on the death rate in 1947 with a DDT malaria control program. The mortality rate fell 38 per cent in three years; from 20.3 per 1,000 in 1946 to 12.6 in 1949.

As a result, the population has grown from 6,500,000 in 1945 to more than 8,400,000 today. At this rate, Ceylon's population will double in less than 20 years. Ceylon is currently producing only half the food needed to sustain its people at a marginal dietary level.

The swelling population of Ceylon has touched directly on our relations with that country. In 1952 the Ceylonese found themselves with only a 20 day supply of rice. Officials, frightened by the approach of famine, signed a trade pact with communist China under which Ceylon traded rubber for rice. One result was that the United States cancelled all foreign aid earmarked for Ceylon. In what would appear to be a miracle of diplomacy, the Ceylonese have, despite the cancellation of aid from the United States, remained our steadfast friends in Asia, supporting us in the face of communist and neutralist criticism at the Manila and Bandung conferences.

Any serious consideration of the problem of overpopulation ultimately involves the question of controlling a nation's birth rate. Widely divergent religious, social and political points of view make this a difficult question to answer.

The nearest thing to an official government policy on birth control in congested Asia is the legalized abortion provision of a law passed in Japan in 1947, when that country's 78,000,000 people were on the brink of economic ruin. Japan now records two abortions to every live birth.

While the Population Reference Bureau holds no brief for abortion or for other drastic means of controlling human fertility, it does hammer consistently at the need for a realistic appraisal of the dangers of overpopulation. The notion that overpopulation is a phenomenon which involves strange people living in distant areas and which has no bearing or effect on the lives of Americans is one which we can no longer afford to entertain.

What happens to people anywhere on the globe affects us intimately in this new age. The population explosion in Puerto Rico sent thousands of Puerto Ricans fleeing to New York City, in quest of jobs, new homes and new lives. This mass entry brought far-reaching changes

POPULATION BOMBS

IN its August *Bulletin*, the Population Reference Bureau lists countries and areas which are potential sites of population explosion. These countries currently have relatively high death rates and very high infant mortality by the standards of the western industrialized nations. They also have a high birth rate, characteristic of virtually all agrarian populations.

Currently, most of these populations are increasing slowly because of the high death rate. Any reduction in the death rate, leaving the birth rate at the present levels, accelerates the rate of population growth.

A few examples from this list of tinderbox areas are given below with a column showing the effect of a sharp reduction in the death rate:

Country	Present Population	People per square mile	Birth rate (per 1,000 population)	Death rate (per 1,000 population)	Population by 1975 if death rate is reduced, bringing the rate of increase to 3 per cent per year
Brazil	57,098,000	17.4	47.2*	20.0*	103,125,000
Chile	6,238,000	21.8	36.1	13.02	22,304,000
Egypt	22,469,000	58.2	44.7	19.3	40,581,000
India	372,000,000	293.0	40.0*	28.0*	671,873,000
Philippines	21,440,000	185.5	20.7	8.8	38,723,000
Mexico	28,850,000	37.9	44.6	15.6	52,106,000

*Estimated.

to the economic, ethnic, cultural and political complex of the world's greatest city.

Likewise, the furious growth of populations in Asian countries, if it drives them into deals with communist China, or upsets the delicate balance of their emergent industrialization, can be a problem as close to home as a fire in the next block.

As India and other nations of the Orient spur their economic development to keep pace with their rapidly rising populations, they will need and consume more of the raw materials of industry which the United States and other more advanced countries have traditionally obtained from them. Already India is curtailing exports of her manganese, a material vital to industry in this country. What products may be curtailed tomorrow, or the day after tomorrow, remains to be seen. It is disturbing to note, however, that we presently require many raw materials from nations within the sphere of rapid population growth and incipient economic development.

Emigration, which released Europe's population pressures in the Nineteenth Century, is inadequate to relieve the mounting population pressures of such countries as India. It has been estimated that, to hold population growth in check by emigration in India today, some 5,000,000 people would have to be moved each year. Many times that number would have to be moved to relax the excess population pressure of all Asia. Will such people, in their hour of discontent, draw closer to a beckoning Russia?

Asia's crisis in people is compounded by the fact that the Asian food supply is short and no easy formula exists for providing vast quantities of additional food at this time. Most recent estimates of average caloric intake show, for example, diets near the famine level, with deficiencies of so-called protective food elements—even more widespread.

Dwight R. Bishop, an Asia and Middle East specialist of the U. S. Department of Agriculture's Foreign Agriculture Service, says: "The more we survey facts and figures about food production and consumption in Asia and the Middle East, the closer we come to the conclusion that the food deficits in those areas are likely to continue in ever increasing size."

Mr. Bishop notes that food production per capita for Asia as a whole has fallen to 90 per cent of the prewar average and has barely managed to maintain the level of the prewar average in the Middle East.

"Together," Mr. Bishop writes,

"Asia (excluding the areas in the USSR) and in the Middle East have 55 per cent of the world's people . . . including an estimated 590,000,000 in mainland China. If we assume, conservatively enough, that the population there is increasing at the rate of 1.5 per cent a year, the increase in the next ten years will approximate 230,000,000 people. To feed that many people more at the current rate of consumption—1,900 to 2,400 calories per person per day in 1953-54—would require about 40,000,000 additional short tons of food grain, or about 80,000,000 more acres of land in food grain at the currently prevailing yields.

"But the food production history in the two areas does not indicate that they will be able to produce enough food for that many people. Since 1939 both Asia and the Middle East have changed from net exporters of food grains to net importers; in 1944-55 they imported some 4,800,000 tons. Even under the assumption that production of food grains will increase by 25,000,000 tons in the next ten years, the deficit will still be near 20,000,000 tons."

Not all is gloom in the world population outlook. There are, in fact, some exciting and promising possibilities for U. S. businessmen in the overseas population boom.

In Latin America, where populations and economies have been growing at a prodigious rate, great new markets are opening. As now backward peoples of these Latin republics rise to the standards of new industrialization they will become customers for the same kinds of things which America produces and consumes. If population growth does not upset the economic apple cart, there will be many new outlets for such articles as TV sets, washing machines, automobiles.

Experience indicates that nations, as they raise their standard of living by embracing industrialization, first cut their death rates without an accompanying reduction in birth rates. The immediate result is a rapid population rise. Later, however, the birth rate tends to slacken and the nation's population pattern comes into equilibrium. In the west the transition took a century or more. Agrarian countries, already more heavily populated than Eighteenth Century Europe, will find a more rapid transition far more difficult.

It is toward such an equilibrium in the rising nations of Africa, the Middle East, Asia and Latin America that the experts are looking now. They hope a balance can be reached without disastrous population upheavals along the way.

END



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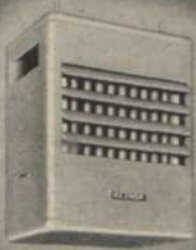
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LAWMAKING OUTLOOK

(Continued from page 47)

Democrat's elder statesman on tax policy, joined with Sen. Byrd in opposition to the measure. They rallied enough other Southern Democrats to kill it. In conference, the senators stood firm, and the House Democrats, faced with the need of getting an excise and corporate tax rate extension bill to the White House by the April 1 deadline, finally had to surrender. The President thus got the corporation and excise tax rates he wanted, without the individual income tax cut he opposed.

The postal pay raise brought another flurry. Mr. Eisenhower proposed one pay raise plan to Congress.

When the lawmakers voted a more generous increase he made one of his rare uses of the veto power. His veto was sustained, and Congress then voted a pay boost he would accept.

But mostly the President's legislative program had smoother sailing. Congress went along on reciprocal trade, federal pay boosts and taxes. It gave the President practically all the money he asked to run the government in the 1956 fiscal year—and in some cases, a little more than he asked.

In the field of foreign affairs, Senate Foreign Relations Committee Chairman George helped deliver approval of the Southeast Asia mutual defense pact, authorization for the use of armed forces in the defense of Formosa, approval of the mutual defense treaty with Nationalist China, ratification of the German rearmament treaty, approval of the Austrian peace treaty, and finally a relatively intact foreign aid program.

The President got easily a four-year extension of the draft although his scheme to set up a large military reserve program had heavy going. Federal housing programs were extended. Bills to strengthen the anti-trust laws were enacted. The Administration's plan to sell the government's synthetic rubber plants was approved. The Renegotiation Act, giving the government authority to recapture excessive profits on defense contracts, was extended for two years as requested. The extension he sought of the Defense Production Act, with its allocation powers and provisions to expand production needed for national defense did not come so readily.

Most of the President's nominations went through with little opposition—including the important

appointment of Justice John Marshall Harlan to the Supreme Court. Even potentially explosive ones like the naming of John B. Hollister as foreign aid chief went through with practically no challenge.

Of course, the President suffered a few setbacks. For example, Congress turned down his request for statehood for Hawaii and his plan for a superagency issuing bonds outside the budget to finance an expanded road-building program. It forced him to withdraw his nomination of Allen Whitfield, Des Moines lawyer, to be a member of the Atomic Energy Commission.

Frequently, however, he lost in one house only to gain final victory from the other. Over violent Administration objections, the House voted to restore rigid high farm price supports, but the Senate bottled up the measure.

The House-approved income tax reduction scheme was also killed in the Senate, while the House rejected the public housing program voted by the Senate.

By the time Congress gets under way next January, both Congress and the Administration will be looking toward the coming election.

The stress on politics is one reason why taxes will provoke a hot fight again next year. However, the issue will not be, as it was in 1955, whether or not there should be tax cuts. Barring a war, both parties will favor them.

The issue will rather be the type of tax reduction to be granted, how much it should be and, of course, who will get the political credit.

An opportunity to move for a tax reduction is bound to come up next year. The 52 per cent corporate tax rate and some excise tax rates are again scheduled to drop next April 1, and the President will doubtless ask Congress to extend them entirely or in large measure. If he doesn't also recommend tax cuts, the Democrats will certainly make another effort to add to the bill extending the corporate and excise tax rates an amendment to reduce individual income taxes.

It's unlikely that Republican leaders in Congress would be able to hold their followers in line next year against such a Democratic drive.

But the theory goes that the Administration will offer a tax reduction scheme of its own.

It now appears that progress in cutting expenditures and moving toward a balanced budget may warrant a tax cut in Administration minds. Treasury Secretary Humphrey and other Administration leaders have

always said a balanced budget need not actually be achieved before taxes can be cut again, but only that continued progress in reducing spending is necessary.

It appears, then, that the big fight will be over the shape and size of the reductions. The Democrats will fight for a large cut, aimed entirely at helping "the little fellow." They'll push for an increase in exemptions or a tax credit, urge repeal of the dividend tax relief and possibly other tax revisions voted last year. They may favor some excise cuts.

The Republicans will suggest individual cuts in the form of rate reductions, and will couple this with some incentive tax changes for business—possibly a slight drop in the corporate tax rate, relief for businesses operating abroad, a reduction in the intercorporate dividend tax and similar items designed to spur business activity.

A related issue next year will be whether the budget can be balanced as the Republicans promised in the 1952 campaign. This is still a possibility for the fiscal year ending next June 30. If it doesn't materialize then, there certainly is a good chance that the President in January can forecast that the budget will be balanced during the year ending June 30, 1957.

Any tax reduction would, of course, affect the budget picture. That's an additional reason why the Democrats can be expected to push a fairly substantial tax cut. By the same token, they probably will again display little inclination to cut the President's appropriations requests and help balance the budget that way.

Next year is certain to see another attempt to fight out the farm issue. This is an issue on which the President reportedly feels very deeply; so far he has stood solidly behind Agriculture Secretary Benson's program of flexible price supports based on supply and demand.

The House-passed bill to revive the Democratic program of 90 per cent of parity price supports for basic farm commodities now languishes in the Senate Agriculture Committee. The committee has agreed to hold hearings around the country this fall on the farm price-support question. A vote on the issue probably will come early next year. House Agriculture Committee Chairman Cooley of North Carolina plans to keep pressure on the Senate committee to do something about the bill.

Since the President is certain to veto any bill to restore the Democratic program, the main result of this fight will be its impact on the November, 1956, balloting. It will bring no change in the farm price-support law.

While passage of a three-year extension of the reciprocal trade program this year removes this part of the Administration's foreign economic policy from next year's battleground, several other items of legislation will set off free trade versus protectionist squabbling. One of the most controversial undoubtedly will be the Administration's request for congressional approval of U. S. participation in the Organization for Trade Cooperation, a permanent set-up designed to sponsor and administer international tariff-cutting agreements. Protectionists seem to view OTC as even more objectionable than was extension of the trade agreements program; the State Department regards it as essential to the successful operation of that program.

International developments may, of course, raise issues that turn out to be even bigger than any of these. In this event, however, the President should have little reason to worry. The bipartisan foreign policy shows no sign of an impending breakdown, and even the pressure of an approaching election is unlikely to strain it greatly.—CHARLES B. SEIB



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Recently, a large Philadelphia baking company* made a one-week, one-floor test of Mosinee Turn-Towels against two competing brands. Here are the results:

Cost of Towel No. 1\$12.30

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In terms of both cost and quality, results were so conclusive in favor of Turn-Towels that this company installed them throughout the plant.

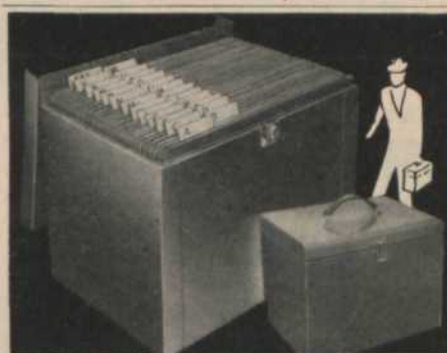
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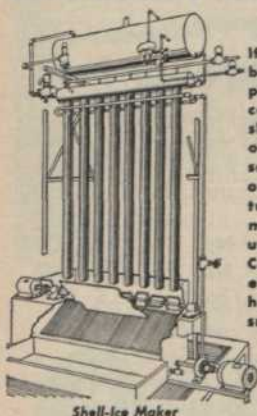
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Private crop insurance coming soon . . .

First coverage will be offered on next year's crops . . . Outlays for business growth may break record this year . . . New tack in fight on juvenile delinquency . . . West Coast businessman converts car into office

LOOK for private insurance companies to announce a crop insurance program soon. First coverage will be offered on 1956 crops, won't be ready for fall plantings. Details for the plan are being worked out now.

Best guess is that private crop insurance will be offered experimentally in select areas, probably in about 40 counties. If successful, it will be expanded rapidly. It'll be designed to appeal to the best farmers and won't be offered in marginal and submarginal farm areas now included in the Federal Crop Insurance Corporation's program.

C. S. Laidlaw, manager of FCIC, is sure the experiment will succeed if based on sound business principles. The federal program has cost the taxpayers almost \$200,000,000 since it was started in 1939.

Based on the government's experience, actuaries are able to work out sound rate schedules. Mr. Laidlaw has made federal records available to any interested companies.

Private insurance will be similar to present crop-hail coverage.

What companies will participate will be decided soon. The American Insurance Association, an organization of about 200 stock companies, has indicated interest, based on recommendations by a committee which studied the matter for a year.



**Business in a
new growth cycle**

American business is moving into a new period of surging expansion. You can expect total outlays for new plant and equipment by the end of 1955 to equal or possibly exceed the record expenditures of two years ago.

Third quarter spending, which is going at the annual rate of \$28,830,000,000, is nearly \$2,000,000,000 more than the 1954 third quarter,

according to the Council of Economic Advisers and the Office of Business Economics, U. S. Department of Commerce.

By the start of 1956 business and industry will have spent \$233,480,000,000 for growth since the end of World War II.

Current spending compares to the record 1953 total of \$28,320,000,000 for new plant and equipment. The 1946 figure was \$14,850,000,000 and for 1939 it was \$5,510,000,000.

New construction also reflects U. S. economic expansion. The monthly average now is almost \$400,000,000 higher than a year ago. By Jan. 1 new construction should total \$41,800,000,000, which is 11 per cent higher than the 1954 figure of \$37,577,000,000.

This will bring to \$280,433,000,000 the amount of new construction put in place since the end of World War II.

Private spending will account for \$29,500,000,000, an increase of 14 per cent over last year. Public spending, accounting for \$12,300,000,000, will be up four per cent.

In percentage increases, the commercial category stands out. Building of stores, restaurants and garages is increasing 44 per cent, to a total of \$1,800,000,000. Industrial building, which will total about \$2,200,000,000, will be eight per cent higher than last year.

In residential building this year new dwelling units will account for \$14,600,000,000, a 21 per cent increase.



**A reward
for self-reliance**

W. W. Sebald, president of Armco Steel Corporation, grants cash awards to high school students in Middletown, O., and Ashland, Ky.,

if they demonstrate conclusively that they are self-reliant.

Mr. Sebald has long felt that those who award scholarships, athletic prizes, art and dramatic honors and other gifts have ignored self-reliance, a trait which he regards as one of the most important in an individual.

In 1954, the first year of the Sebald Self-Reliance Awards, more than 200 students out of the 500 high school seniors in Middletown submitted applications for these awards. The field was winnowed to eight winners—four boys and four girls.

First prize winner at Middletown this year was Willie Napoleon Clements, who worked a newspaper route, handled produce at a wholesale house, clerked in a grocery store. In addition, he found time to play on the Fenwick High School football team and track squad, took part in school plays, was in the upper one third of his class and was elected to the National Honor Society.



His office
goes with him

The "radar car," as Frank Tripp's friends call it, is a gadget as important to its electronics-minded, gimmick-loving owner as his wrist watch—and more useful.

Mr. Tripp is on the go ten to 12 hours daily in the active management of two corporations of which he is president. In addition, he is either financially or "inspirationally" interested in a half dozen subsidiaries or experimental groups which are constantly in need of policy-level decisions.

To keep in touch with all of this and still cover the 100 miles per day or more required to confer with active business interests throughout the San Francisco Bay region, Los Angeles and Montana, Mr. Tripp equipped his station wagon with a mobile telephone, two dictation machines (one for incoming messages and one for outgoing), a calculating machine, an automatic name and number finder, and a remote-call device that blows the horn of his car automatically when a call comes in while he is busy in a nearby building.

Mr. Tripp spends less than a half hour daily in his two stationary offices, uses 95 per cent of his working time productively by means of his mobile electronic office. He dictates correspondence en route, listens to play-backs of pertinent items selected by his secretary from current trade magazines.

PRIDE: You've knocked yourself out all summer . . . digging, planting, painting, weeding, pushing that lawn mower. But now . . . the flowers are in full bloom, the grass was never greener, the new paint job looks swell . . . the whole place looks like a million! Why shouldn't you feel a little chesty? Same thing holds for the folks at your Chamber of Commerce . . . when they see the results from projects they back to improve the community. Like sparking



a drive to beautify the highways, for example . . . or starting a clean-up campaign . . . or pushing for new shopping centers, more playgrounds, better parking facilities . . . name your local problem! But how about you? You'll carry that pride of accomplishment a lot farther when you support your Chamber's activities. Like one of our greatest presidents once said . . . "I like to see a man proud of the place in which he lives—live so the place will be proud of him." We think Mr. Lincoln had something there. Don't you?

Pete Progress

Pete Progress speaks for your Chamber of Commerce, an organization dedicated to making your community a safer, healthier, pleasanter place to live and work. Support it!

WE LEGISLATE—THEN LEARN

OUR economic future is bright, economists say, unless we have war.

There is a second hazard.

That is government regulation.

The danger from this lies in the fact that we are one nation indivisible—economically as well as politically. We overlook this fact when, for expediency or advantage, we ask the government to change the course of economic movements. This drives economic forces into new and difficult channels causing repercussions, some of them in fields so distant from the original purpose that nobody could anticipate them.

Sometimes this requires another rule and another.

That was the case with World War rationing when purchasing restrictions on scarce necessities sent shoppers rushing to buy the most acceptable substitute, thus forcing it into short supply. This in turn forced adoption of additional controls.

Such pyramiding of regulations could mean socialism but other dangers are equally real—and more immediate.

Government fixes a minimum wage, or raises a tariff, or levies a tax. Wage patterns struggle to adjust themselves, people change their buying habits, somebody goes out of business; in every case the natural economic pattern is thrown off balance at least temporarily, perhaps permanently.

Recently the Supreme Court ruled that the federal government should regulate the price of natural gas. While the effects of this action on the gas industry were still debated, the results were already evident in cities all over the country and in industries as diverse

as construction and retailing. T. L. Cubbage, vice president of the Phillips Chemical Company, explains why. His company will produce a new plastic in plants to be built near Pasadena, Texas, and Sweeny, Texas.

Writing to an east coast city which felt that it had a logical bid for this multimillion dollar development, Mr. Cubbage said:

"As you are aware, the effect of federal price-fixing of natural gas is curtailing the availability of gas outside the producing states and is greatly influencing the location of industry in producing states.

"In some instances, where offsetting advantages are offered, it could be economically feasible to locate plants dependent upon natural gas for fuel or raw material at points far removed from the field of production, except for one factor. That factor is the imposition of federal price-fixing over natural gas sales by producers to interstate pipeline companies. Such control already has caused considerable gas to be diverted from interstate transactions to new intrastate markets; it is certain to result in dwindling of interstate supplies in the future and the scarcity will result in higher prices. Producers simply cannot take the economic risks and uncertainty of finding, developing and selling gas over long terms in interstate markets when they have no idea what price they will be permitted to receive. Likewise, an industry dependent upon natural gas supply cannot afford uncertainty as to that supply."

So a government action aimed at another purpose changes our industrial geography. Federal legislation is closer kin to the shotgun than the rifle.

GUIDING THE PIONEER

FROM the Rio Grande Valley in Texas comes evidence that the pioneer spirit is more than a memory.

The Valley is short of several things, water among them. It is not short of pride.

Recently members of the Texas delegation to Congress announced that they would ask authorization for a \$300,000 citrus and vegetable experimental station to be set up in the Valley.

Having read newspaper accounts of this intention, Paul T. Vickers, manager of the McAllen, Texas, Chamber of Commerce, wrote a letter to the Texas delegation.

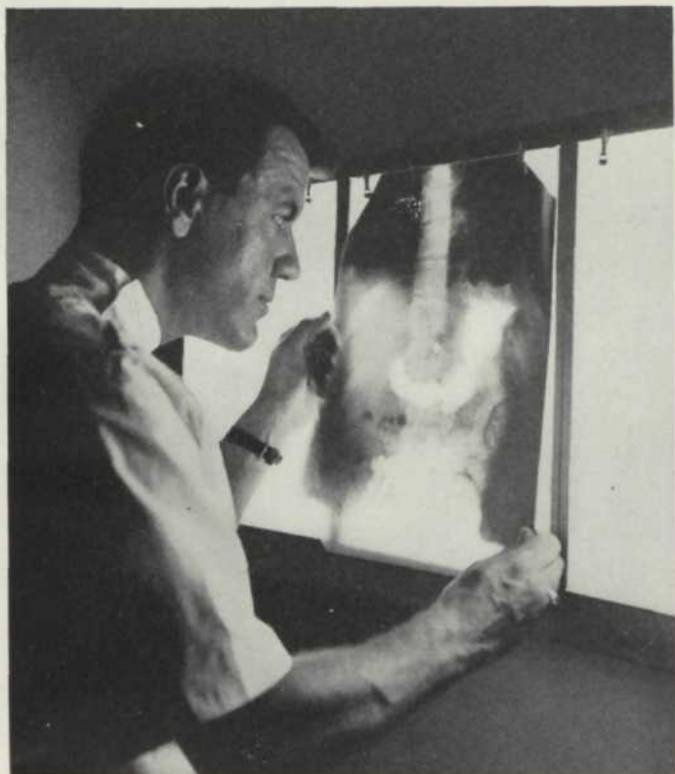
He said, in part:

"The Valley now has nearly a dozen employed agri-

cultural agents; a state agricultural experiment station; a private experiment station; and a college branch specializing in citriculture; and a government by-products laboratory. If the Valley needs another experiment station, McAllen would like to have it.

"But how about saving \$300,000 for the next generation to spend? How about leaving the people some of their money instead of taxing it all away from them? How about spending that \$300,000 to help solve the Valley's water problems instead of adding another experiment farm? How about decreasing the nation's debt instead of abetting creeping socialism by adding another \$300,000 to the billions of debts already on the people?"

Why insurance against major medical expenses is essential for your employees . . . *and for you!*



When any employee or a member of his family is a victim of a really serious medical setback—it can be a terrible blow to him *financially, physically and mentally*. For when costs skyrocket beyond the benefits payable under basic medical plans, he may find that his savings, his security, his ability to do a job well—have suffered serious damage.



Protection from such crushing personal misfortune is not only extremely desirable, but is also available. Administrators of employee benefit plans are intensely interested in establishing this further safeguard for employees. Employees *realizing* the limitations of *basic* plans want plans which include this additional family protection.

Today's rising medical costs make Travelers Major Medical Expense insurance an urgently needed form of Group coverage. Why not get information from your nearby Travelers agent or broker—or fill in and mail the coupon—soon.

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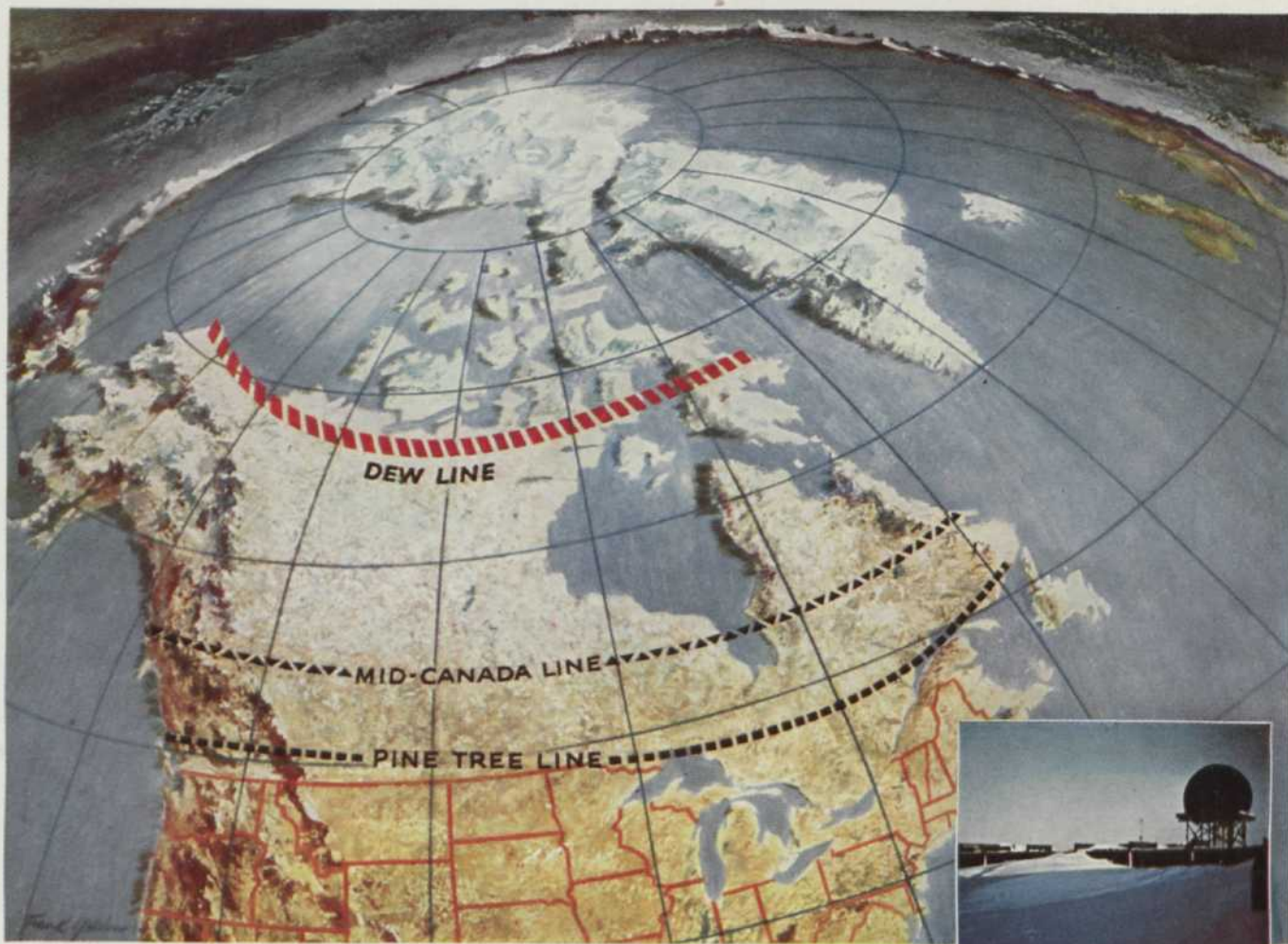
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Artist's sketch of early warning line plan.



DEW Line radar station in the Arctic.

NEW RADAR SKY-WATCH TO GUARD ARCTIC FRONTIER

If enemy planes ever attack from over the North Polar regions, every minute of advance warning of their coming will be precious—for minutes may mean the difference between a successful defense or a crippled America.

So today, across the northern rim of the continent a line of unique radar stations is being built in the icy Arctic wastelands. This is the Distant Early Warning Line... DEW Line, for short.

DEW Line radars will scan the skies constantly...spot any invaders and instantly flash a warning to defense command centers in the United States and Canada. This outermost Arctic sentry will give us earlier warning...will work with the Mid-Canada and Pine Tree radar lines that the U.S. and Canadian governments are providing farther south. All three will function in one vast protective net.

Basically, an early warning radar line is a communications system. So Western Electric, which produces and installs equipment for the Bell Telephone System, was called upon in 1952 by the U.S. Department of Defense to build on the northern

shores of Alaska an experimental early warning line based upon development work done at Lincoln Laboratories, at M.I.T.

We started at once to organize a team for the task. We selected communications specialists from our own ranks; from 17 Bell Telephone Companies, Bell Telephone Laboratories, A. T. & T.'s Long Lines Department and our Canadian affiliate, Northern Electric Company.

Joining forces in much the same way we do to provide Bell telephone service, we pooled our experience and went to work...research scientists, procurement and transportation specialists, construction engineers, microwave technicians, transmission experts, skilled operators of electronic equipment...all with a single mission: to build a first line of defense for America.

Hundreds of other firms were called in to help. Special buildings and construction techniques were invented to meet the severe Arctic weather. Electronic equipment was specially made or converted to cope with magnetic storms. There were major transportation problems to be solved, for tractors, buildings, machinery, mil-

lions of gallons of fuel...thousands of tons of material...all had to be delivered to faraway barren sites. Yet, the job was done on time.

The test installations proved successful—and the U.S. and Canadian governments promptly decided to extend the DEW Line across the Arctic. Western Electric again was called upon—was asked by the U.S. Air Force to undertake, as prime contractor, the job of building the thousands of miles of radar line with responsibility for all phases of it: development, design, engineering, procurement, transportation, construction, installation, testing and training of operating personnel.

Again we have assembled Bell System men and experience to get the job done. We're at it now. Already thousands of tons of heavy equipment have been delivered by air, tractor-train and ship to Arctic sites—much of it by the Air Force and the Navy. Construction is going ahead rapidly before the Arctic winter sets in. Working together, we are pressing forward on the project at full speed.

Western Electric



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